

2010

# Lincoln Elementary School Fort Madison, Iowa I-WALK Report 2010

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# Iowans Walking Assessment Logistics Kit

*A SRTS Program*

## Lincoln Elementary School

Fort Madison, Iowa



IOWA STATE UNIVERSITY  
Extension and Outreach

Funding provided by







Mariannette Miller-Meeks, B.S.N., M.Ed., M.D.  
Director

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August, 2011

Dear Colleagues:

The health of Iowa children is a major concern not only as it relates to the health and well-being of youth, but for the quality of life for all Iowans. According to the latest report, 37% of Iowa elementary school children are either overweight or obese. The prevalence rate of overweight and obesity among children is on the rise in Iowa and nationwide, resulting in many lifestyle-related chronic diseases. Lifestyle choices, including physical activity, account for approximately 85% of the risk of having a chronic disease; indeed, all Iowans have the personal capacity to control health and make a positive impact in this staggering statistic.

Because Iowa children spend a majority of time at school and being transported to and from school, addressing physical activity in this environment is a viable avenue to address lifestyle factors. The Iowa Department of Public Health, in collaboration with Iowa State University Extension, conducted an assessment of the routes Iowa elementary school children taken to and from school. This assessment was conducted to aid communities across Iowa in addressing opportunities to increase school walkability routes, as well as focus on active transport barriers to and from school. The information in this report explains the results of that assessment, as well as presents resources to increase active transport to and from school.

One of the most critical conclusions to draw from the information presented in this report is the importance of active transport to schools to prevent chronic diseases among Iowa children. There are a host of opportunities to prevent chronic disease including:

- Achieving and sustaining an ideal body weight, and
- Increasing physical activity

It is our expectation that the information contained in this report will lead to healthier children, indeed all citizens, across the entire state of Iowa, resulting in a better quality of life for Iowans.

Sincerely,

Mariannette Miller-Meeks, B.S.N., M. Ed., M.D.  
Director, Iowa Department of Public Health





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# Introduction

In the past three decades, the number of obese and overweight individuals in Iowa and across the nation has skyrocketed. With obesity comes the greater risk of health complications and life expectancy reduction. As a result, the current generation of youth face a new and growing threat to their overall quality of life. In Iowa alone, 37.1% of 3rd grade students identify as either overweight or obese.\* Given the prevalence of obese and overweight individuals, it is important to promote healthy behaviors for all Iowans. The development of Safe Routes to School (SRTS) is key component of advocating healthy behaviors. A vision of healthy Iowa communities must regard and value safe routes to and from school.

The Iowans Walking Assessment Logistics Kit (I-WALK) program aims to provide community coalitions with relevant local information to assist them in continuously updating, implementing and evaluating their SRTS plan. The I-WALK program is an Iowa SRTS project funded through the Iowa Department of Transportation, administered by Iowa Department of Public Health (IDPH) and Iowa State University Extension and Outreach (ISUEO) and implemented by communities across Iowa. I-WALK utilizes web mapping technologies and global positioning systems (GPS) units to accurately map routes that children use to walk or bicycle to school and identify safety barriers and solutions. Creating environments that encourage children to walk or bicycle safely to school will improve health outcomes for children by providing additional opportunities to reach the recommended daily 60 minutes of physical activity, as well as normalize walking as part of a lifestyle habit.

I-WALK was piloted in 2010 and 2011 in twelve Iowa communities. The communities which included Atlantic, De Soto, Fort Madison, Hull, Independence, Kalona, Riceville, Spencer, Tabor, Vinton, West Des Moines and West Union, range in population from 875 to 56,609 people. IDPH selected the pilot communities by choosing two from each of the six public health regions in the state.

The project team consisted of Christopher J. Seeger, ISUEO landscape architect and associate professor of landscape architecture; Alan Jensen, ISU Geospatial Technology program coordinator and I-WALK co-principal investigator; Tami Larson, IDPH project manager and Cathy Lillehoj, IDPH chief epidemiologist and program evaluator. Local Public Health (LPH) led local efforts in each community.

The I-WALK project consisted of four components: 1) a Parent/Child survey, 2) a teacher tally, 3) GPS walkability workshops and 4) community coalitions.

## 1. Parent/Child Survey

The purpose of the survey was to better understand how each child gets to/from school and the concerns parents have about their children walking or biking to/from school. While most of the survey focused on SRTS issues for those who walk or bike to school, parents and children that live in the country and ride the bus were also surveyed. The survey is broken into the following parts:

- Multiple-choice survey questions
  - Parent or Guardian completed
- Distance mapping between home and school
  - Parent or Guardian completed
- Route mapping
  - Parent or Guardian and child completed together
- Barrier/opportunity mapping
  - Parent or Guardian and child completed together

## 2. Teacher Tally

The Teacher Tally was developed to help communities determine how students get to and from school each day. This information provided the baseline data needed to determine any change in walking or bicycling to and from school and helped evaluate the short and long term effectiveness of the I-WALK program.

Over the course of several consecutive days, teachers listed the different ways students could get to school and then with a show of hands the students indicated how they got to and from school that day. The teacher recorded the information along with the weather for that day on the tally sheet. Individual students were not identified on the tally sheet, only aggregate data were recorded.

## 3. GPS Walkability Workshops

Trained citizens conducted inventory of their community using iPhones equipped with the ESRI ArcGIS iPhone app that was customized for use in SRTS projects by ISUEO. The I-WALK team trained the volunteers in each of the pilot communities to use the iPhone app. The volunteers then took to the streets to collect data.

Workshop participants mapped information from three categories: intersections, midblock sidewalks, and additional features that impede pedestrians and cyclists.

\* Iowa Department of Public Health 2010 BMI Assessment



At intersections, volunteers indicated whether or not there were painted crosswalks and curb cuts, and what type of control system, if any, was in place (e.g., stop signs, stoplight, flashing light). Volunteers evaluated sidewalks at midblock, indicating whether or not there were sidewalks, and if so, whether or not they were in good condition and wide enough for two people to walk side by side.

Additional features included barriers such as vegetation growth across the sidewalk, places where water frequently pools on the sidewalk, sidewalks that just end, and barking dogs that scare children.

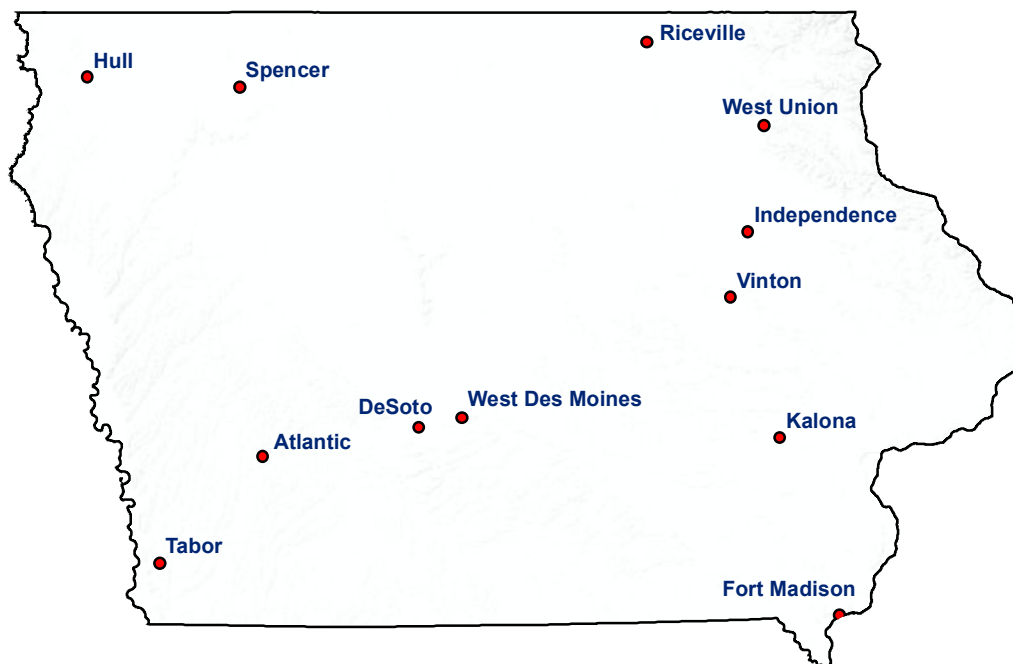
#### 4. Community Coalitions

LPH headed up an effort to create a SRTS coalition in the community to help address issues that were identified in the assessment. The communities used resources from the SRTS website to guide their invitations to local stakeholders that could get involved. They were then tasked with inviting all of these people to be involved in the effort. Now that the coalitions have been created, the communities have started assembling funding for future projects.

The following report includes the data compiled while evaluating the elementary school.



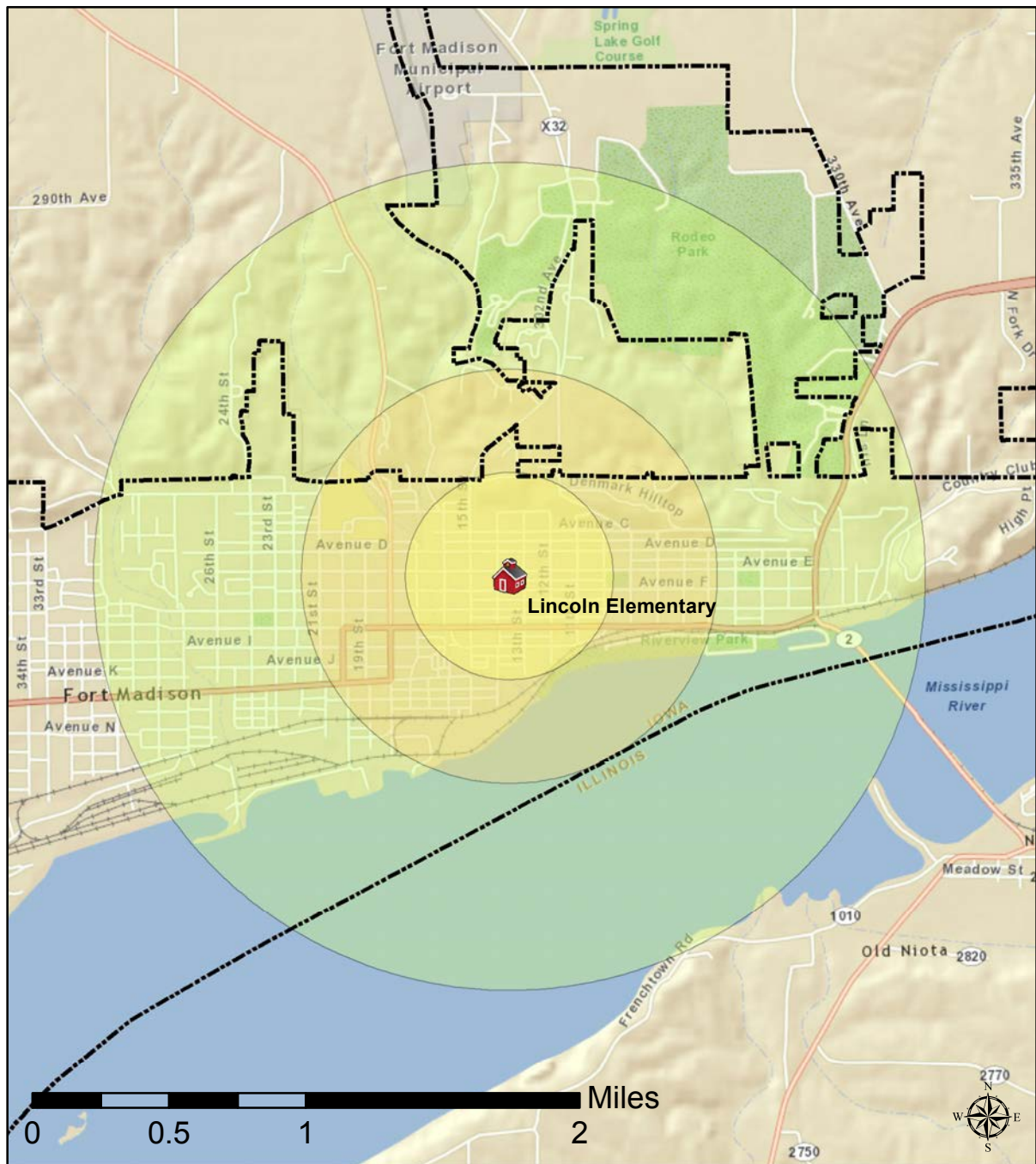
Deteriorating sidewalk creates tripping hazard in Fort Madison.








# Buffer Around School

Euclidean buffers (as the crow flies) are often used to determine the distance students live from a school. While this map illustrates the areas one-half, one and two miles around the school, SRTS planning teams should be cautioned that the true distance for a child to walk along a network (street or trail) to the school could be a longer distance.

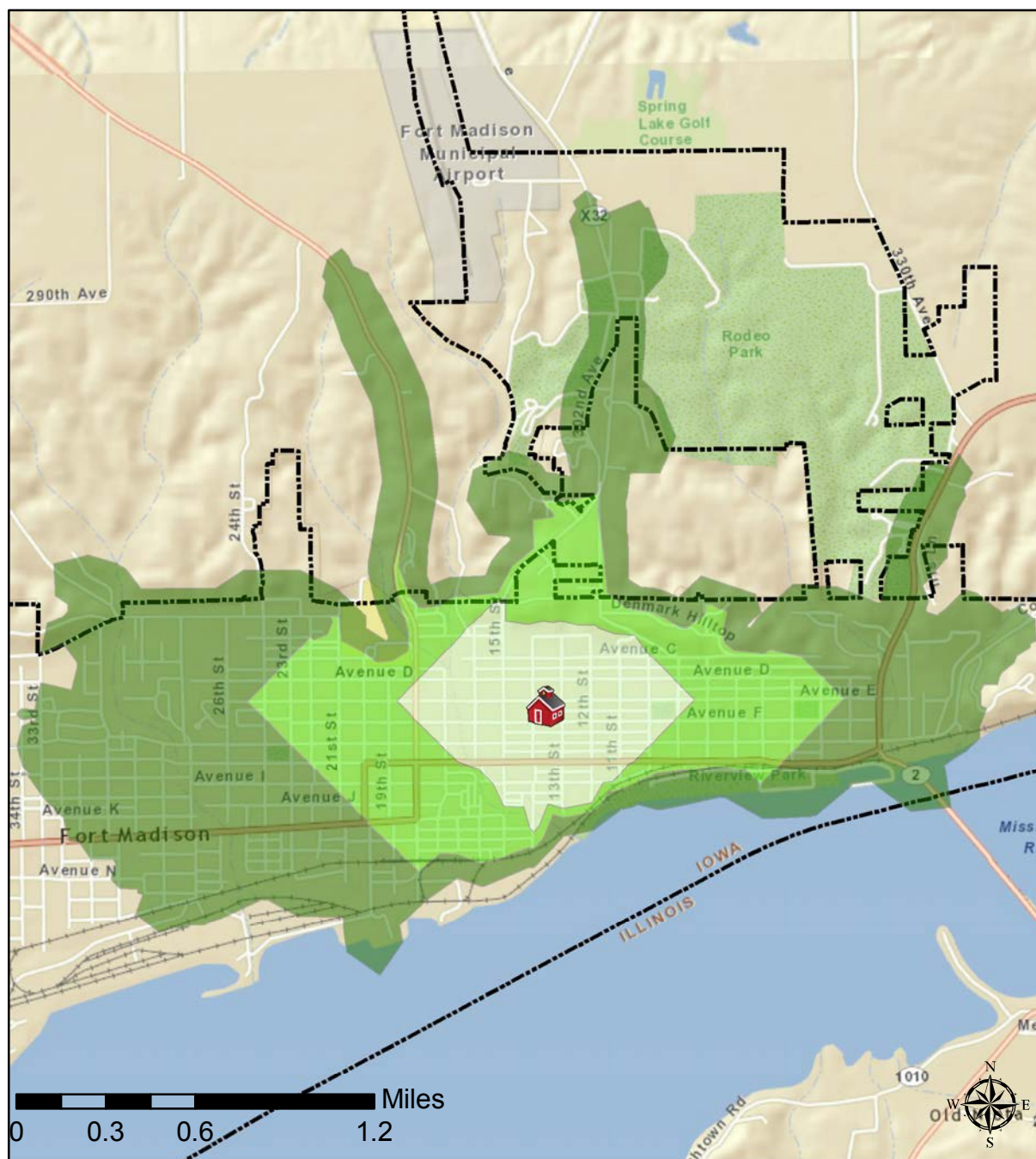


## Legend







 School  1/2 Mile  1 Mile  2 Mile

## etwork Buffer Around School

Much like the Euclidean buffer, the network buffer map shows one-half, one and two mile buffers around the school. However, the buffers on this map are based on the distance required to navigate a network (Road). Thus, this map is more appropriate when determining the distance a student would travel to get to school if all streets provided adequate sidewalks and crossings.

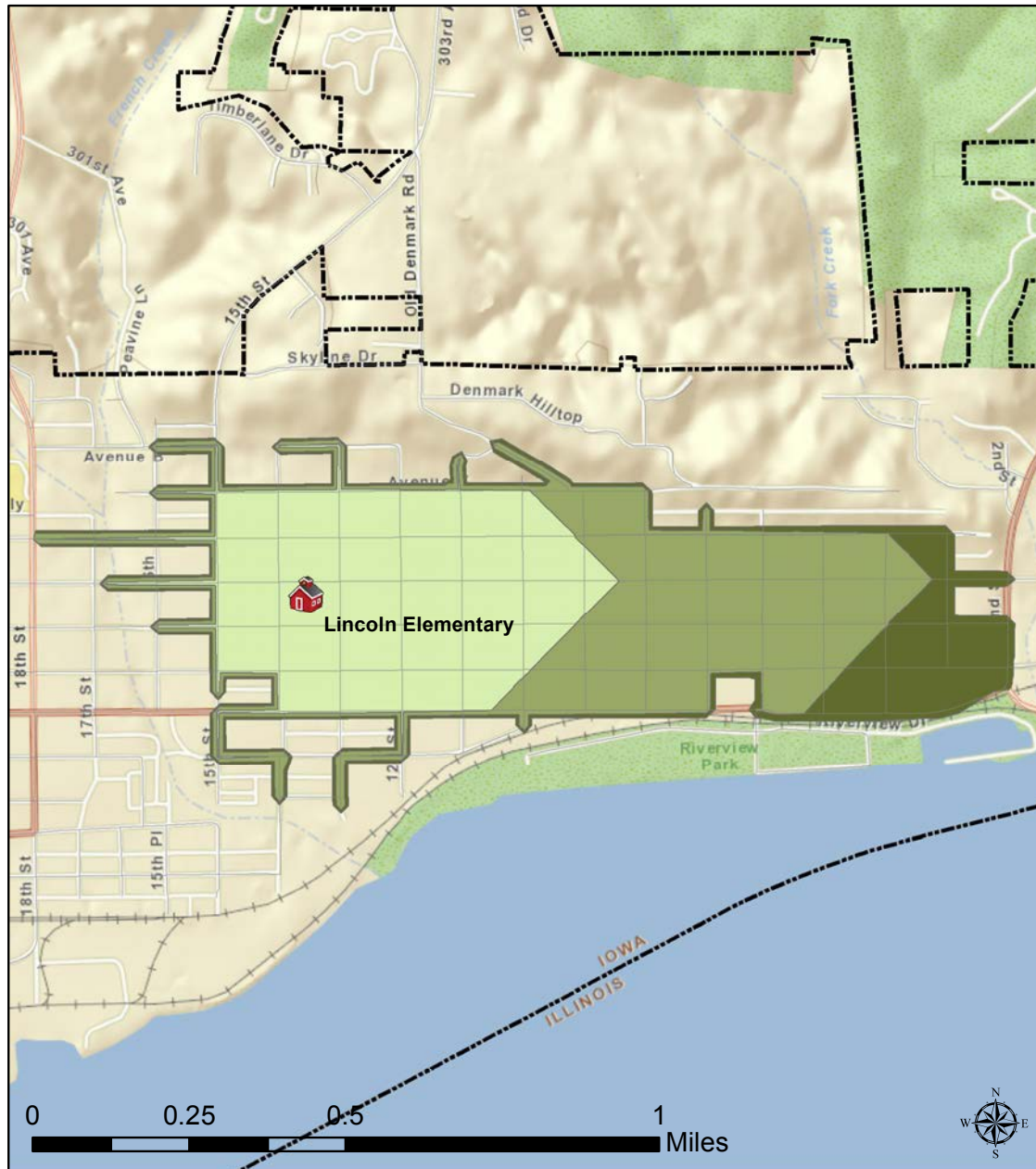


### Legend

-  School
-  Bus Stops
-  City Boundary
-  1/2 Mile
-  1 Mile
-  2 Mile



Expanding upon the network buffer in the previous map, streets with walkable sidewalks on either side were identified and included in the network analysis. The result is a map that illustrates the distance a student could travel from the school if limited to only those streets that included at least one adjacent sidewalk. The city core, which is generally an older residential area, typically has sidewalks along both sides of the street and presents a robust network of walking paths. Areas of newer development typically have an irregular or absent network with little or no connectedness, making safe walking a challenge for the student.



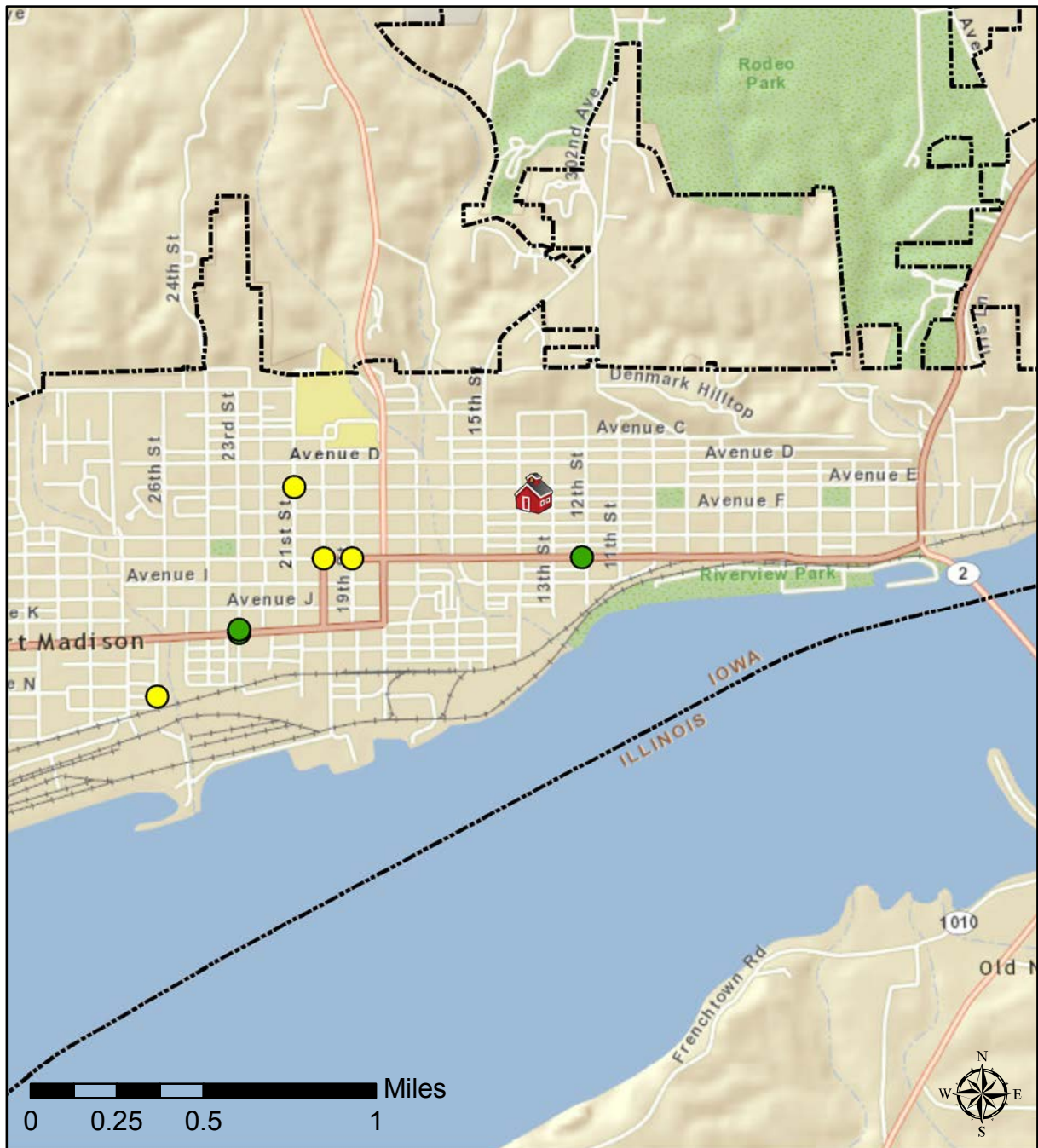
## Legend

**Sidewalk Network Buffer**  
**From Break**  
 0.00  
 0.01 - 0.50



# Automobile vs. Pedestrian or Bicycle Crash Data

The map below uses Iowa Department of Transportation data from 2009 through 2011 to identify location of accidents between vehicles and either bicyclist, pedestrians, or skaters occurred.



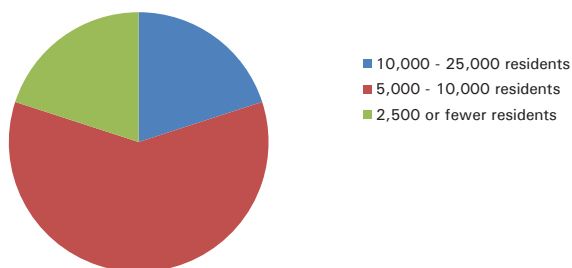
## Legend

-  School
-  Bus Stops
-  City Boundary
-  Pedestrian
-  Pedalcyclist
-  Skater
-  Other

## General Findings

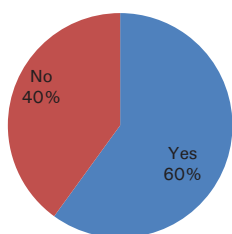
During the Spring 2011, the I-WALK communities were asked to have the city planner complete an online survey concerning the local infrastructure conditions. Five city planners completed the survey. The city planners responding to the survey represented communities ranging in size from 25,000 residents to fewer than 2,500; 50% represented communities with 5,000 to 10,000 residents (see figure).

Community Size, N = 5



All respondents to the survey indicated their community worked with the regional Council of Government (COG) or a consulting engineer on city planning issues. Further, all respondents indicated working with the COG or a consulting engineer on bicycle and/or pedestrian issues (see figure).

Community Work with MPO/RPO on Bicycle/Pedestrian Issues, N = 5

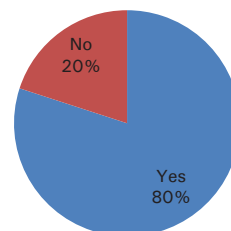


Respondents were asked if their community worked with the Metropolitan Planning Organization/Regional Planning Organization (MPO/RPO) on city planning issues, as well as bicycle and/or pedestrian issues. 60% reported engaging with the MPO/RPO on city planning issues and on bicycle and/or pedestrian issues.

Survey respondents were asked to describe the sidewalk networks in their respective communities. Sixty percent indicated their community had a mostly complete network (75%) of sidewalks while 40% indicated their community sidewalk network was approximately 50% complete.

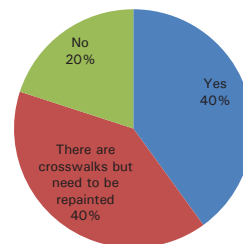
Four of the five city planners indicated their community had adequate street lighting for community residents to feel safe at night (see figure).

Adequate Street Lighting for Residents Feel Safe at Night, N = 5



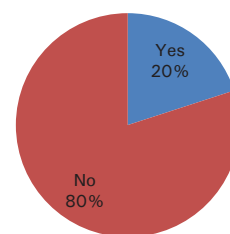
Forty percent of the city planners responding to the survey indicated there were adequate crosswalks delineated in the community while 20% indicated there were not adequate crosswalks. Forty percent indicated the crosswalks needed to be repainted (see figure).

Crosswalks Need to be Delineated, N = 5



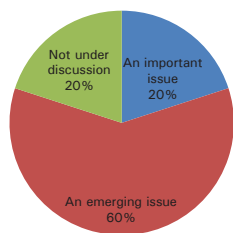
A follow-up question queried the city planners on using an assessment with specific criteria to determine if sidewalks need to be repaired. Four of the five city planners responded an assessment with specific criteria was not used (see figure).

Community Uses Assessment with Criteria to Determine Sidewalk Repairs, N = 5



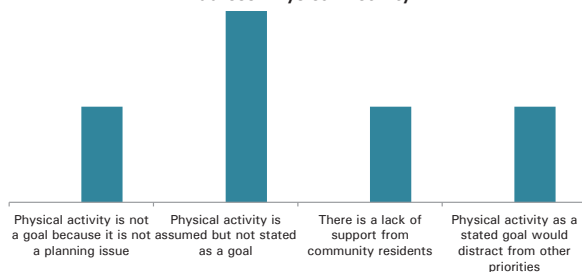
City planners were asked about the importance of physical activity for community residents. The majority (i.e., 60%) believed physical activity was an emerging issue; 20% believed physical activity was an important issue. The remainder indicated physical activity was not under discussion (see figure).

Importance of Physical Activity of Community Residents, N = 5



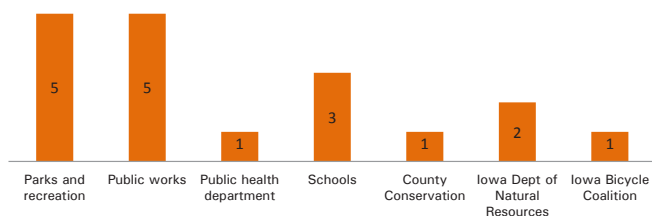
The survey queried city planners about the relationship between community planning and design with the ability of residents to be physically active. (see figure).

Reasons Why Community Comprehensive Plan Not Address Physical Activity



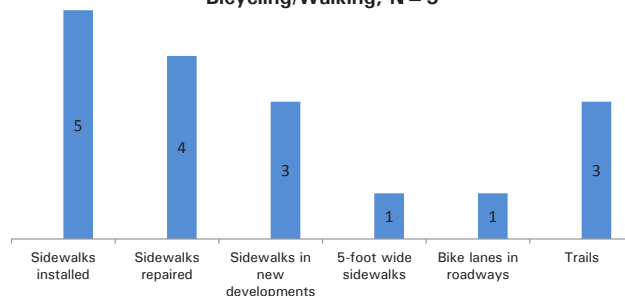
Survey respondents were asked about the external community planning connections. All respondents interacted with Parks and Recreation, as well as Public Works Department. Sixty percent interacted with community schools and 40% with the Iowa Department of Natural Resources. Only 20% interacted with the Public Health Department, County Conservation or the Iowa Bicycle Coalition (see figure).

Community Planning Connections, N = 5



City planners were asked about community facilities to support bicycling and/or walking. All indicated sidewalks had been installed and 80% that sidewalks were repaired. Sixty percent indicated sidewalks were installed in new developments and 60% indicated the presence of community trails. Only 20% indicated the presence of 5-foot wide sidewalks and bike lanes in roadways (see figure).

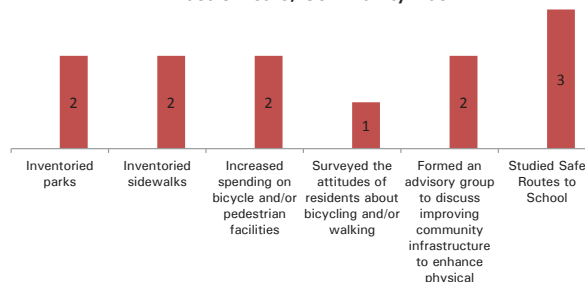
Community Facilities in Place to Support Bicycling/Walking, N = 5



All city planners responding to the survey indicated sidewalks are required in new developments. Eighty percent indicated parks are required in new developments.

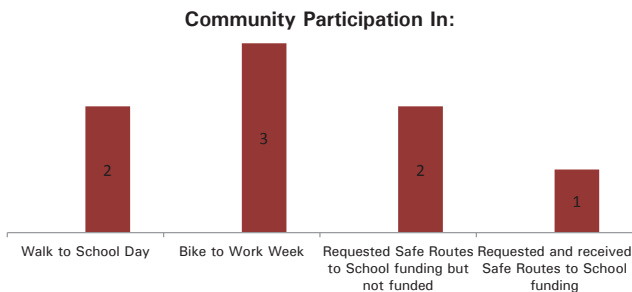
Survey respondents were asked about community activities in the past 5 years. Half of the respondents indicated the community had inventoried parks and sidewalks, plus increased spending on bicycle and/or pedestrian facilities and formed an advisory group to discuss improving community infrastructure to enhance physical activity. Seventy five percent had studied the SRTS program. Only one respondent had surveyed the attitudes of community residents about bicycling and/or walking (see figure).

In Last 5 Years, Community Has:



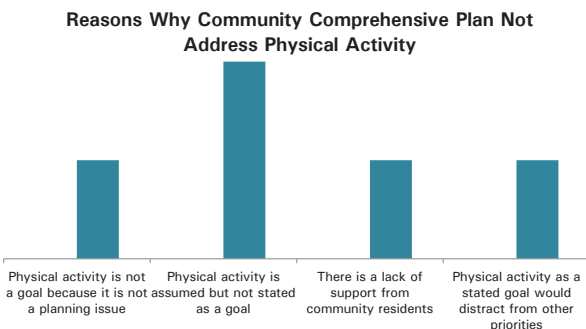


City planners were asked about community participation in various initiatives related to physical activity. Sixty percent of the communities had participated in a Bike to Work Week while 40% had participated in a Walk to School Day, plus requested but denied SRTS funding. Only one respondent had requested and received SRTS funding (see figure).



City planners were asked if the community had a Complete Streets Policy. Sixty percent did not have a Complete Streets Policy while 40% were exploring a policy implementation.

Eighty percent of respondents indicated their community had a comprehensive plan. All city planners indicated their community comprehensive plan did not address physical activity. Several reasons were cited for the absence of physical activity initiatives in comprehensive plans including: physical activity was assumed and not stated as a goal (67%) and physical activity not a planning issue, lack of support from community residents, and physical activity as stated goal distract from other priorities (all 33%) (see figure).



City planners were asked if the community's comprehensive plan addressed other issues: all respondents indicated their comprehensive plan addressed Parks and Recreation; 75% indicated their comprehensive plan addressed bicycle and/or pedestrian issues.

Seventy five percent indicated their community's comprehensive plan had been updated 6 to 10 years ago; 25% indicated their plan had been updated 11 to 15 years ago.

# C

## oalition Building

Inviting and involving key partners to be a part of the community coalition is essential to having a successful Safe Routes to School (SRTS) program. Each community was charged with identifying key organizations and individuals ready to get involved in the discussions surrounding a safe and healthy environment to send students to and from school. A community coalition should be a well-rounded group that represents a wide range of interests and expertise that are related to SRTS. Local public health representatives accessed online resources, developed specifically for I-WALK, to engage and lead the coalition members.

	Ft. Madison
Local Public Health	2
School representative	3
Parent	
Student	
Citizen from community	
Parks and Recreation Department	1
Local Law Enforcement/Traffic Safety Officer/Safety Education Officer/Safety Enforcement Officer/School Resource Officer	2
City Planner	
ISU Extension	1
DNR (Department of Natural Resources) Representative	
Grandparent	
Other	1
Totals	10

# Teacher Tally Results

The Teacher Tally was administered twice. Once in the fall and once in the spring. For one week in the fall, teachers marked how students got to and from school Monday through Friday on a paper card (shown below). The process in the spring was similar, with teachers completing the tally online at [www.i-walk.org](http://www.i-walk.org). The spring version also included one additional category, School Bus Plus. Students responding to this category indicated that they rode a school bus and also walked or biked as part of their travel to and from school. Results for all schools can be found at the I-WALK website.

## Fall Version

School: \_\_\_\_\_  
 Teacher: \_\_\_\_\_  
 Grade: \_\_\_\_\_ Total No. students in class \_\_\_\_\_  
 No. students living within classroom city \_\_\_\_\_

**Directions:**  
 The purpose of this tally is to record how students get to and from school each day **over the course of one week**. Results of the tally will be available November 2010 at the [www.i-walk.org](http://www.i-walk.org) website. On the back of the tally sheet note early outs etc.

1) Fill in the info. above and start date (top left on tally grid). Ask the class by raise of hand if they live within the city where the classroom is located.

2) Monday: ask the class to think about how they came to school. Read through all the potential answers so the students know the choices. Next ask the class by raise of hand to answer "How did you arrive at school or your community school bus stop today?" Record results in the appropriate box along with the general weather (Sun, Rain, Overcast, Windy, SNow or COlder than normal).

Optional: If your school district busses students from another community that has a central bus stop, you can record the counts based on the number that go directly to the school vs. the community bus stops. Use the bottom right of the square for the community bus stop counts. i.e. A student that walks to the community bus stop and then rides the bus should be counted as a walker, not a bus rider. Total of column = no. kids in class.

3) Tuesday morning: ask "How did you go home after school yesterday?" followed by "How did you arrive at school today?"

4) Continue this process for each following day with the exception of Friday, where you should ask "How do you plan to go home after school."

5) Return complete form by October 12th

## Teacher Tally



Start Date	Monday		Tuesday		Wednesday		Thursday		Friday	
	To	From	To	From	To	From	To	From	To	From
Walk										
Bike										
Skate/Scoot										
School Bus										
Family Vehicle										
Carpool										
Public Trans.										
Other										
Weather (circle)	S, R, O, W, SN, CO	S, R, O, W, SN, CO	S, R, O, W, SN, CO	S, R, O, W, SN, CO	S, R, O, W, SN, CO	S, R, O, W, SN, CO	S, R, O, W, SN, CO	S, R, O, W, SN, CO	S, R, O, W, SN, CO	S, R, O, W, SN, CO

The Teacher Tally is a joint project of the Iowa Department of Public Health and Iowa State University Extension and is funded through an Iowa DOT SRTS non-infrastructure grant. The tally form was developed by the ISU Campus Community Partnership for Health (CCPH). Direct questions to Tami Larson, [tlarson@idph.state.ia.us](mailto:tlarson@idph.state.ia.us)



IOWA STATE UNIVERSITY  
University Extension



## Spring Version

School: \_\_\_\_\_  
 Teacher: \_\_\_\_\_  
 Grade: \_\_\_\_\_ Total No. students in class \_\_\_\_\_  
 No. students living in city \_\_\_\_\_ country \_\_\_\_\_

The purpose of this tally is to record how students get to and from school each day. **Two important changes for 2011.** First you need to identify how many kids walk/bike/scoot to a local school bus stop. This is recorded in the *School Bus Plus* box. Students that raise their hand for this may also raise their hand again for Walk, Bike or Scoot, but they should NOT raise their hand for the *School Bus Only* option.

The second change is that at the end of the week, you will need to visit [www.i-walk.org](http://www.i-walk.org) and select the Teacher Tally menu. There you will see a link that will open a form to enter your results.

1) Ask the class by raise of hand if they live within the city or in the country.

2) Ask the class to think about how they came to school. Did they walk to school, ride the bus or maybe walk to a local bus stop. Read through all the potential answers so the students know the choices. Next ask the class by raise of hand to answer "How did you arrive at school or your community school bus stop today?" Record results in the appropriate box along with the general weather (Sun, Rain, Overcast, Windy, SNow or COlder than normal).

3) Repeat for walking home and the remaining two days of the week.

Remember, a student that walks to the community bus stop in another town & then rides the bus should be counted as a Bus Plus and Walker & not a bus only rider.

## I-WALK: Teacher Tally



Start Date	Tuesday		Wednesday		Thursday	
	To	From	To	From	To	From
School Bus Plus						
Walk						
Bike						
Skate/Scoot						
School Bus Only						
Family Vehicle						
Carpool						
Public Trans.						
Other						
Weather (circle)	S, R, O, W, SN, CO	S, R, O, W, SN, CO	S, R, O, W, SN, CO	S, R, O, W, SN, CO	S, R, O, W, SN, CO	S, R, O, W, SN, CO

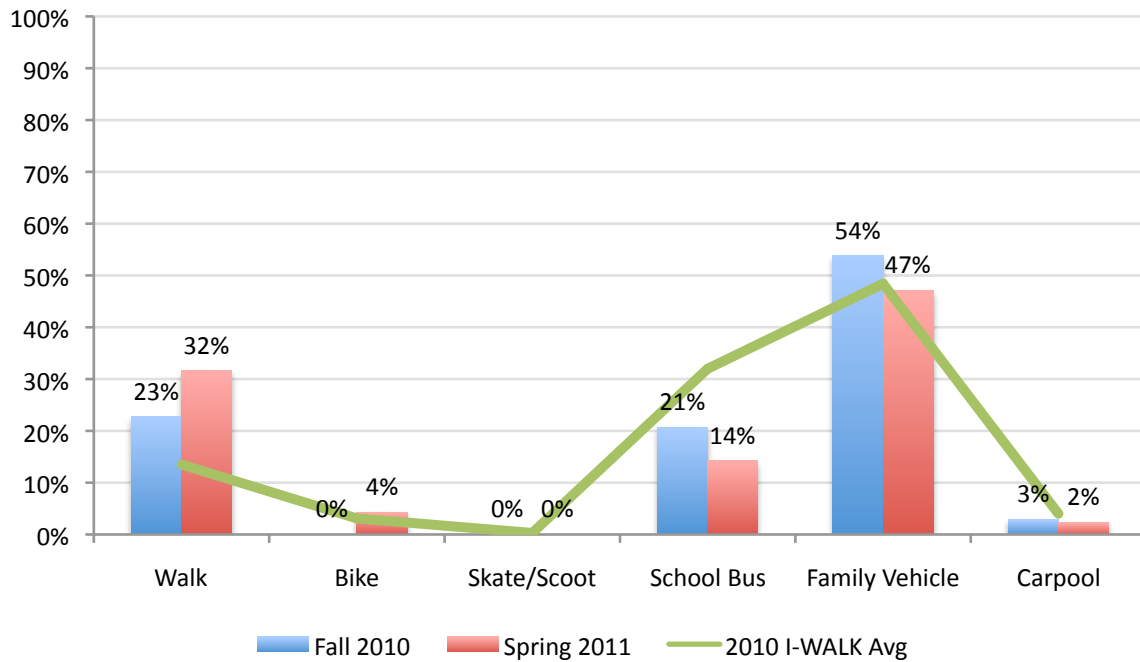
The Teacher Tally is a joint project of the Iowa Department of Public Health and Iowa State University Extension and is funded through an Iowa DOT SRTS non-infrastructure grant. The tally form was developed by the ISU Campus Community Partnership for Health (CCPH). Direct questions to Tami Larson, [tlarson@idph.state.ia.us](mailto:tlarson@idph.state.ia.us)



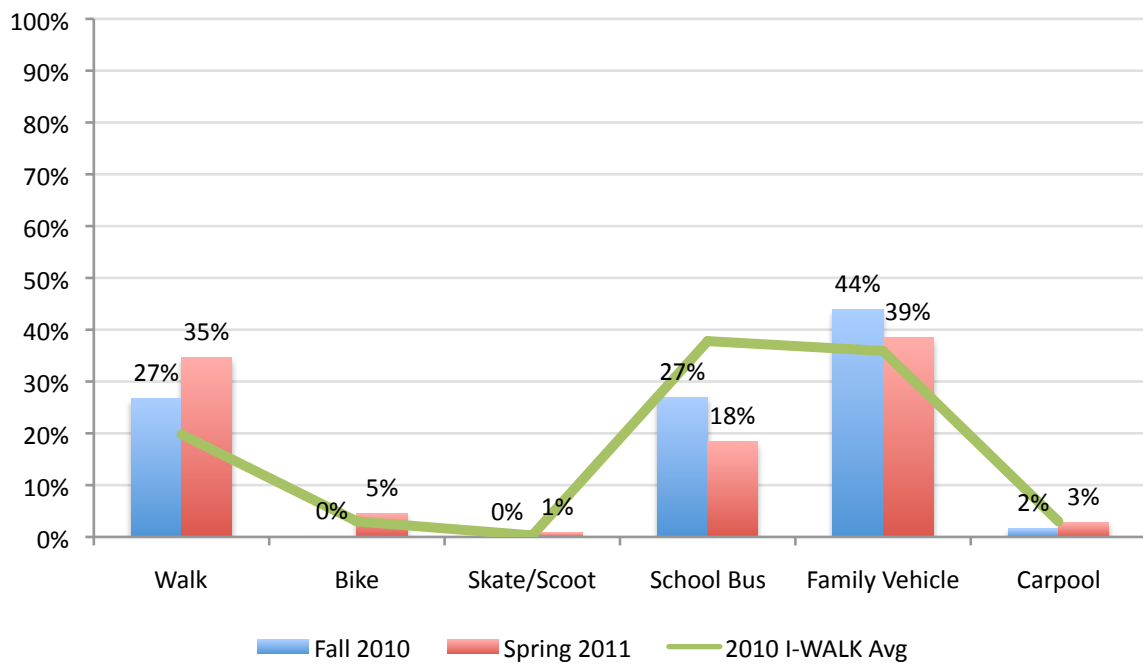
IOWA STATE UNIVERSITY  
University Extension



## To School

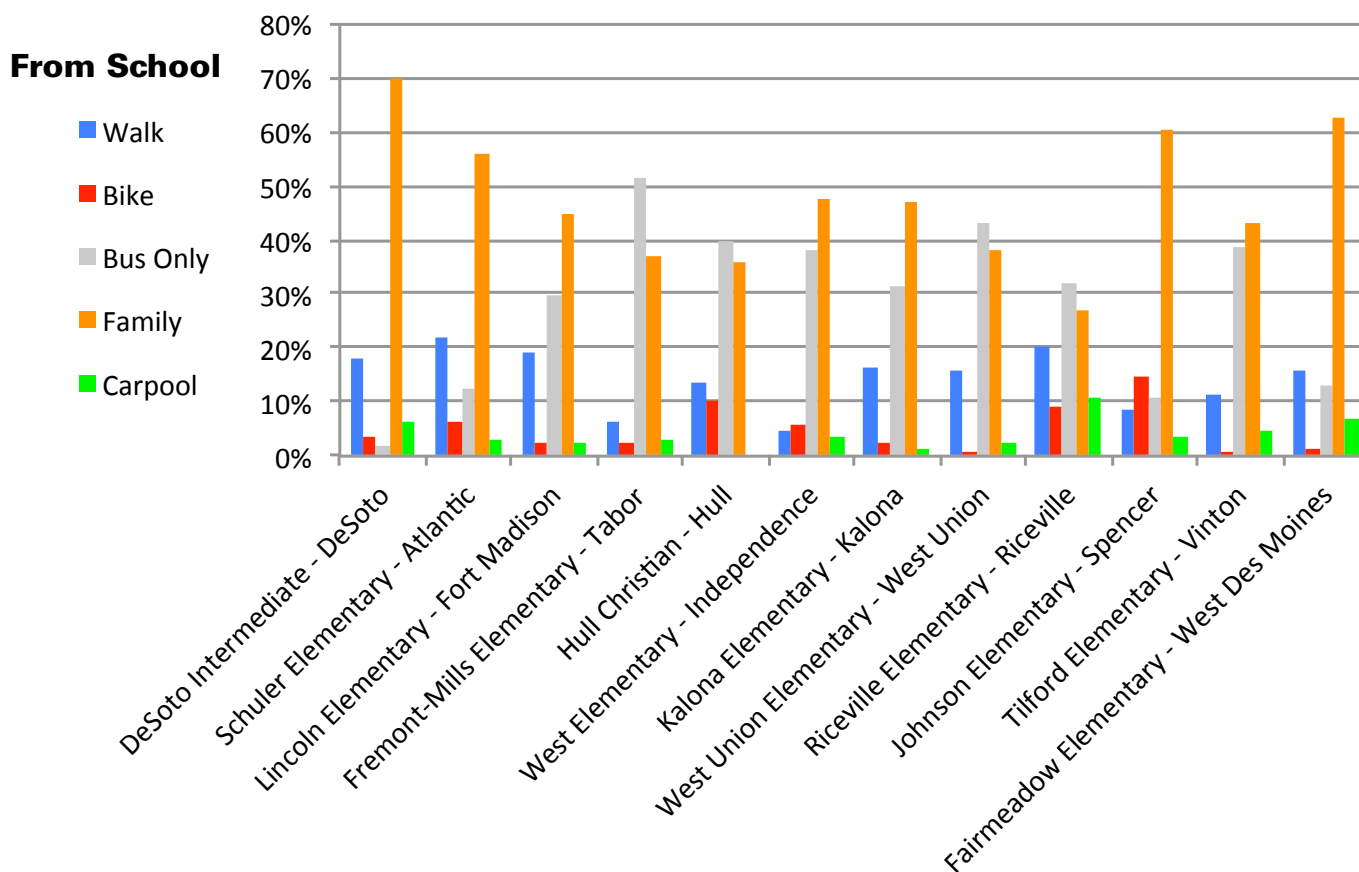
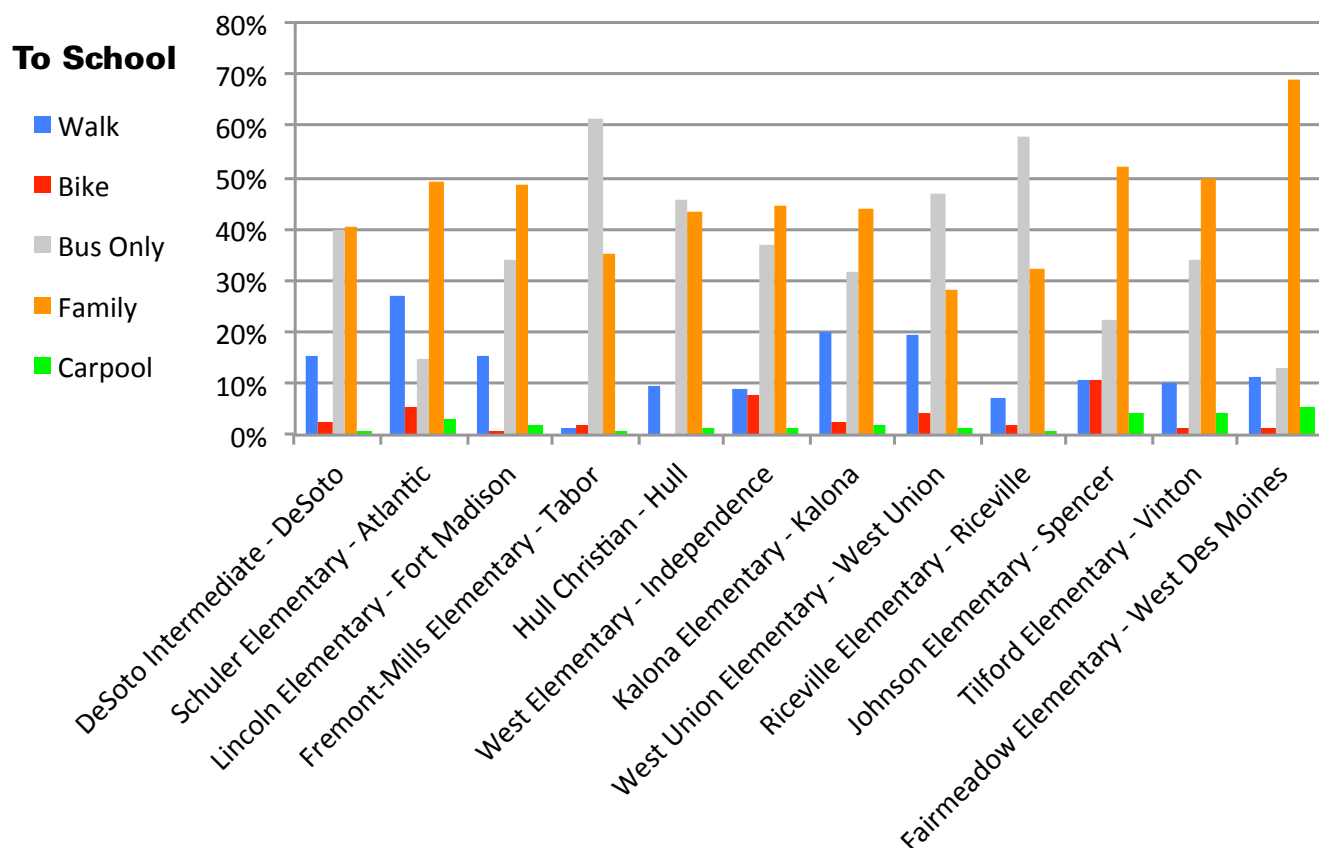


## From School





# -Walk Teacher Tally Comparison



# P

## arent/Child Survey

### Present Conditions

Lincoln Elementary has 312 students between the grades of Kindergarten through 5. Of the 150 students in grades 3 through 5; 47 surveys were completed.

### Parent/Child Surveys

The purpose of the survey was to better understand how each child gets to and from school and what, if any, concerns about their child[ren] walking or biking to and from school. While parts of the survey focused on SRTS issues for those who walk or bike to school, survey participation was also requested from parents and children who live in the country and ride the bus.

There were four parts to this survey:

- Multiple choice survey questions
  - Parent or Guardian completed
- Distance mapping between home and school
  - Parent or Guardian completed
- Route mapping
  - Parent or Guardian and child completed together
- Barrier/opportunity mapping
  - Parent or Guardian and child completed together

**I-WALK School Transportation Survey: Parent Survey**

Has your child asked for permission to walk or bike to/from school in the last year? \*

☐ Yes  
☐ No

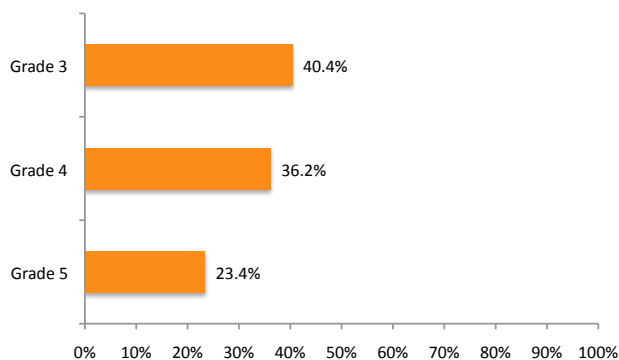
At what grade-level would you allow your child to walk or bike without an adult to/from school? \*

What level of concern do you have regarding the following issues regarding your child walking/biking to or from school? Would you probably let your child walk or bike to or from school more often if this problem were changed or improved?

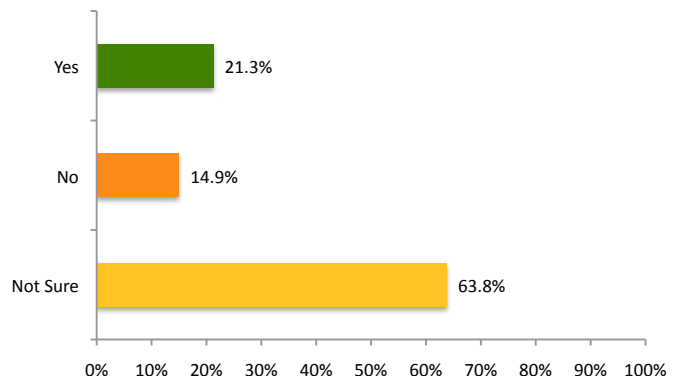
	Yes	No	Not Sure
Distance --- school is too far away	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inconvenience of allowing child to walk/bike to school --- easier to drop off child/children on the way to/from work/other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time --- not enough time for them to get to school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Child's before or after-school activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Speed of traffic along route	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amount of traffic along route	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amount of traffic near school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crossing train/railroad tracks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following graphs represent data collected from the Parent/Child survey completed by parents and children from Lincoln Elementary in Fort Madison, Iowa. Additional data is also available online at [www.i-walk.org](http://www.i-walk.org).

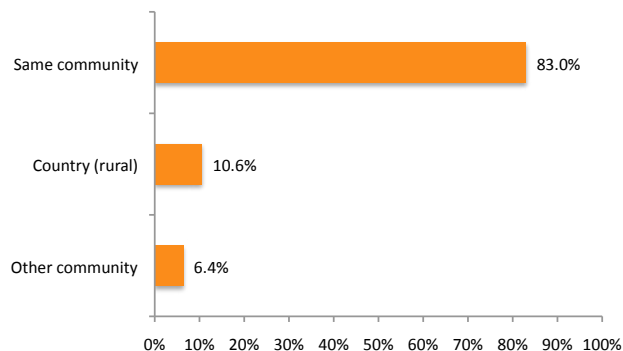
**Current grade of child?**



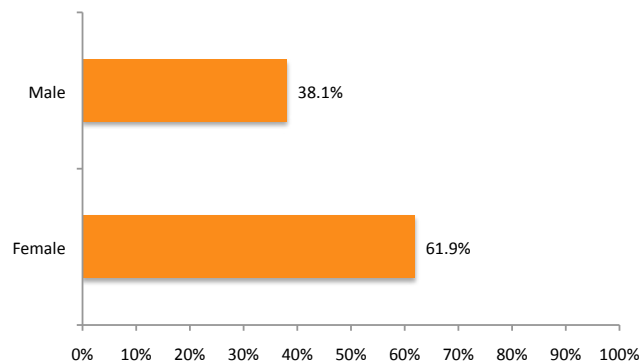
**Does your school currently have an established SRTS Program?**



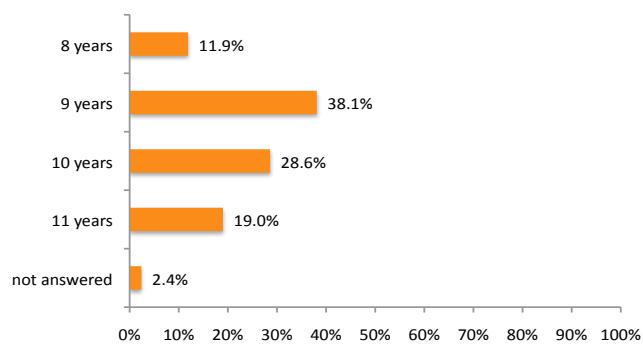
### Do you live in the same town as the location of the school building your child attends?



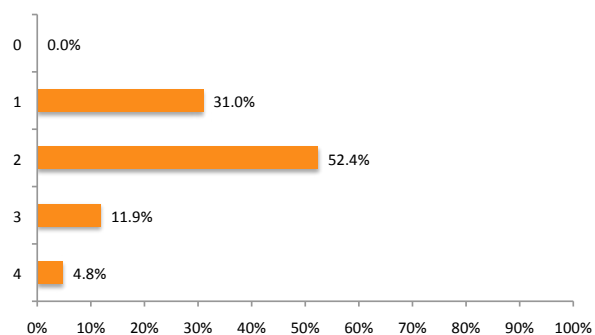
### Gender of child?



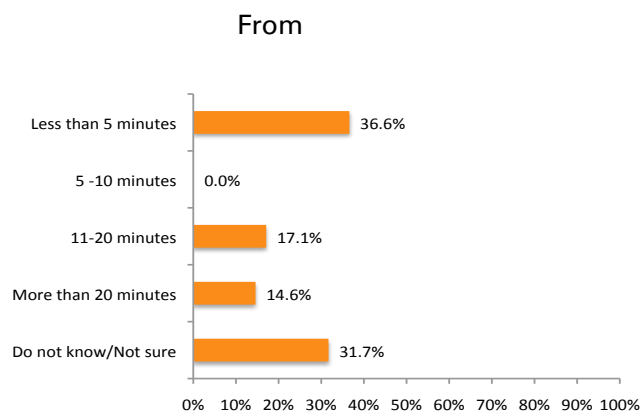
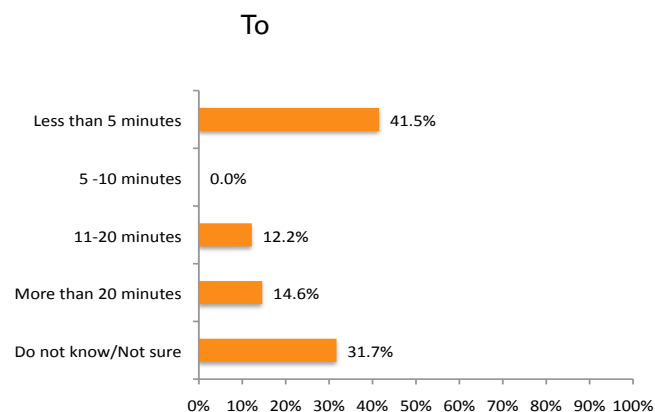
### Age of child?



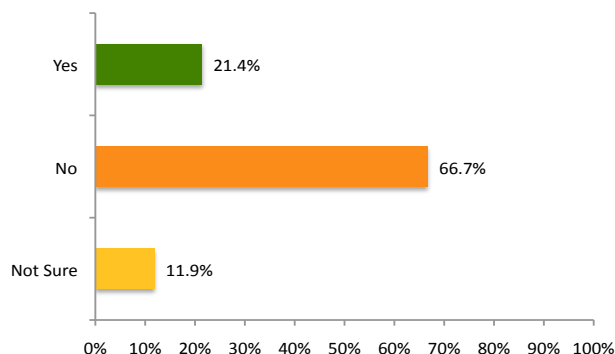
### How many children do you have in Kindergarten through 8th grade?



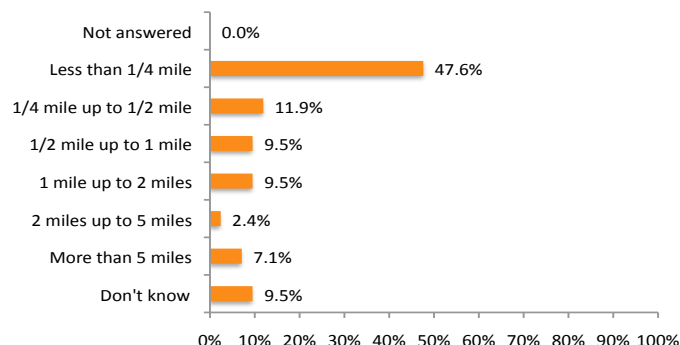
### How long does it normally take your child to get to/from school?



**If your school provides an established location in your community for school busses to pick up the children and then take them to their school building, does your child use it?**



**How far does your child live from the school or bus stop?**



**In a typical school week during each of the following seasons, how many days per week does your child use the following modes of transportation to get to and from school?**

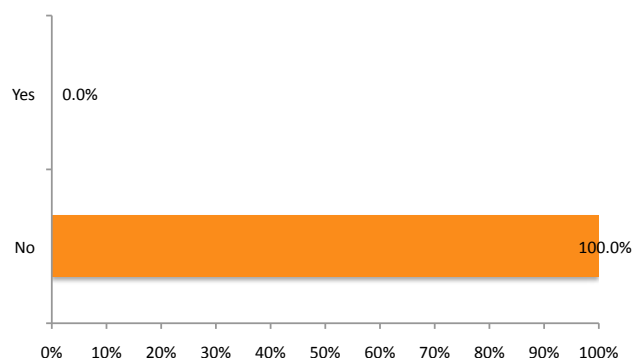
To

To School or Community Bus Stop	Fall	Winter	Spring
	Aug, Sept, Oct, Nov	Dec, Jan, Feb	March, April, May, June
Walk	2.12	1.21	2.02
Bicycle	0.4	0	0.29
Skate/Scoot (skateboard, scooter, inline skates, etc.)	0	0	0
School bus	0.79	0.79	0.79
Family vehicle (only with children from your family)	1.81	2.83	1.83
Carpool (riding with children from other families)	0	0.1	0
Public transportation (city bus, subway, etc.)	0	0	0

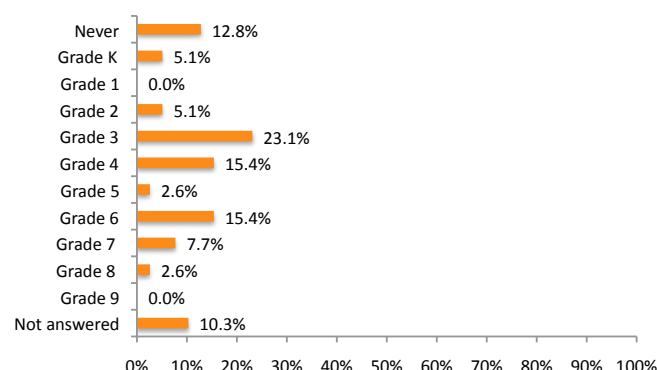
From

From School or Community Bus Stop	Fall	Winter	Spring
	Aug, Sept, Oct, Nov	Dec, Jan, Feb	March, April, May, June
Walk	1.9	0.95	1.83
Bicycle	0.38	0	0.29
Skate/Scoot (skateboard, scooter, inline skates, etc.)	0	0	0
School bus	1.24	1.6	1.19
Family vehicle (only with children from your family)	1.36	2.02	1.26
Carpool (riding with children from other families)	0	0.12	0
Public transportation (city bus, subway, etc.)	0	0	0

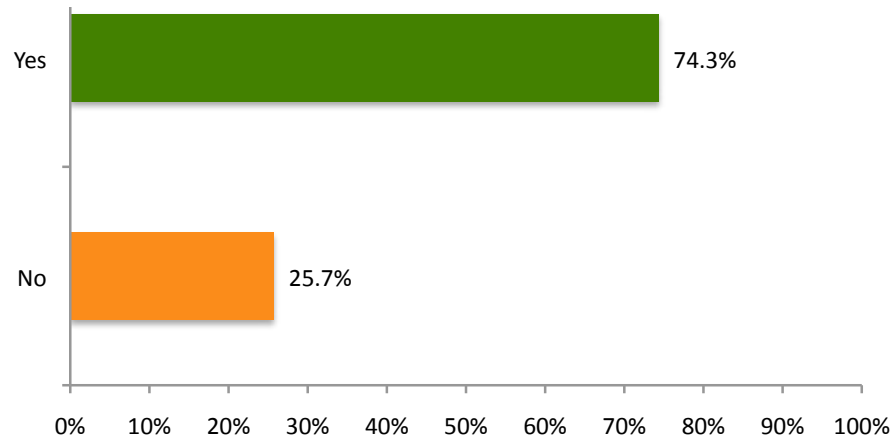
**If your child rides the bus, do they walk or ride bike (ride scooter/skate board, etc) to the location where the bus picks them up?**



**At what grade-level would you allow your child to walk or bike without an adult to/from school?**

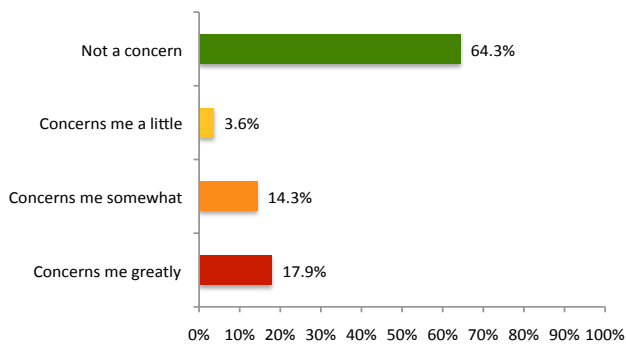


### Has your child asked for permission to walk or bike to/from school in the last year?

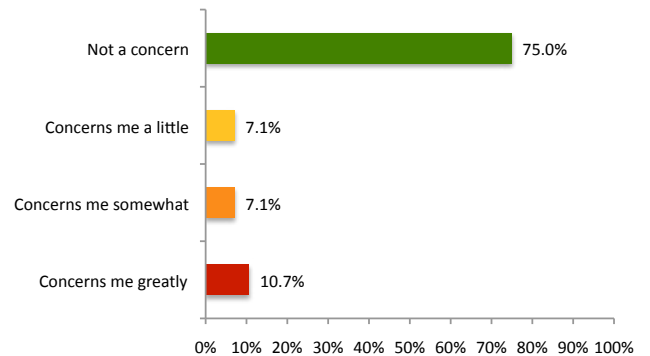


### What level of concern do you have regarding the following issues and your child walking/biking to or from school?

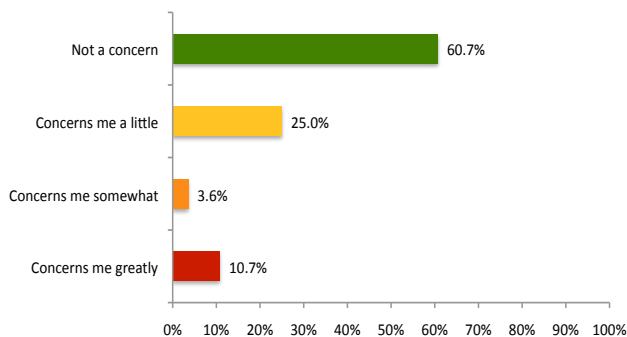
#### Distance- School is too far away



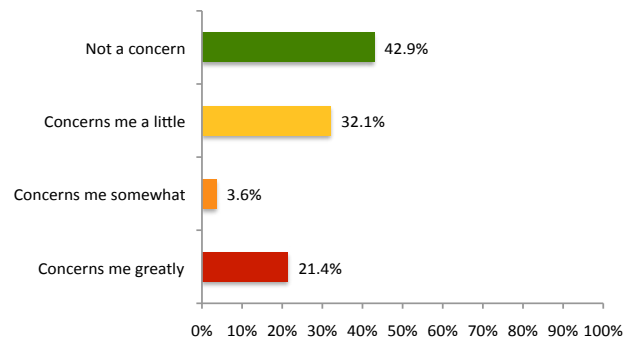
#### Time-not enough time for them to get to school



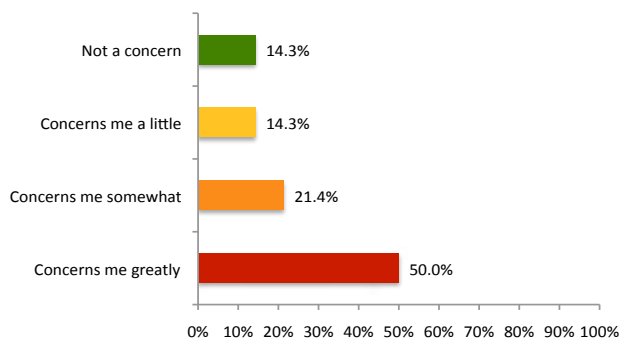
#### Inconvenience of allowing child to walk/bike to school



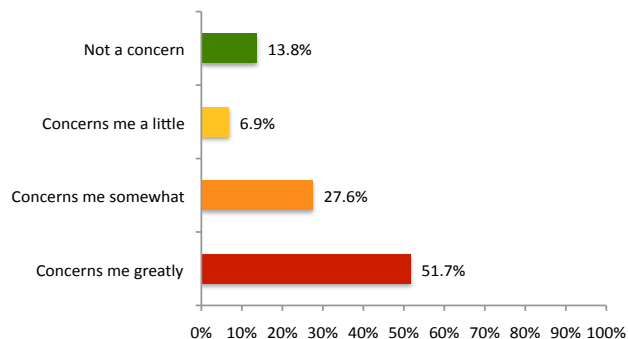
#### Child's before or after-school activities



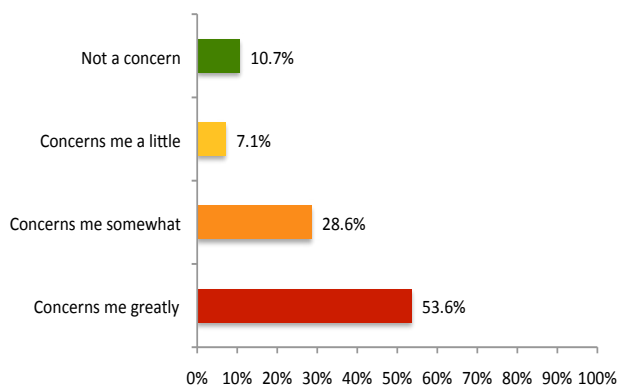
## Speed of traffic along route



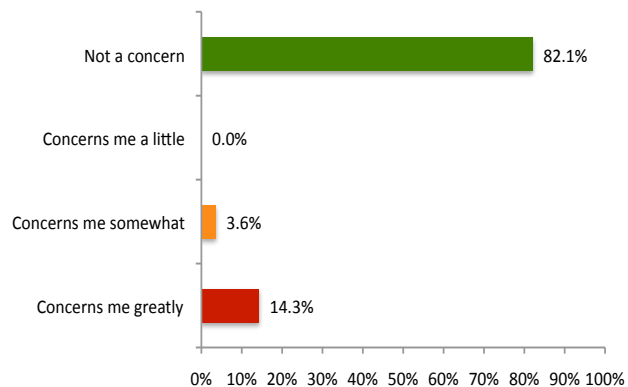
## Amount of traffic on route



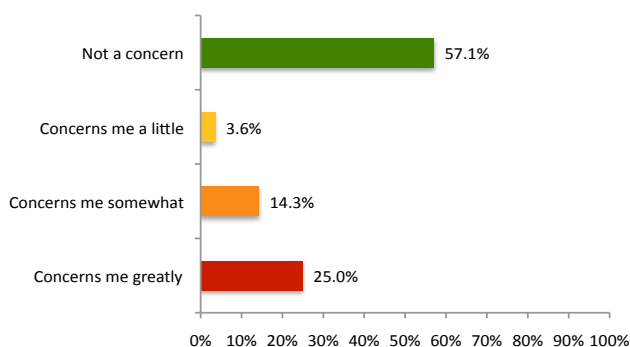
## Amount of traffic near school



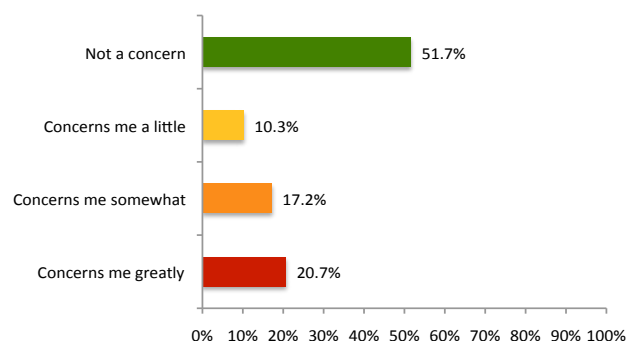
## Crossing train/railroad tracks



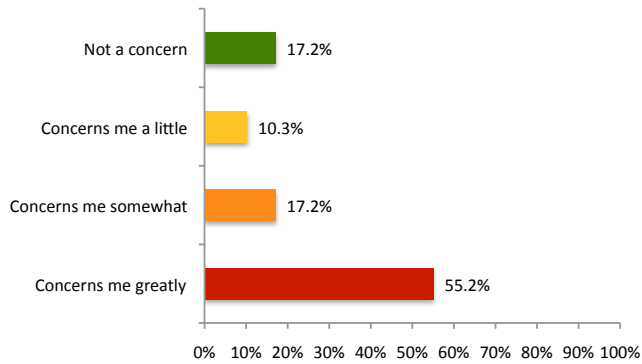
## Adults to walk or bike with



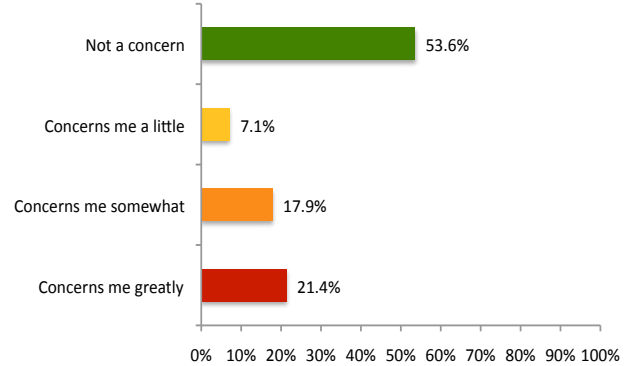
## Sidewalks or pathways



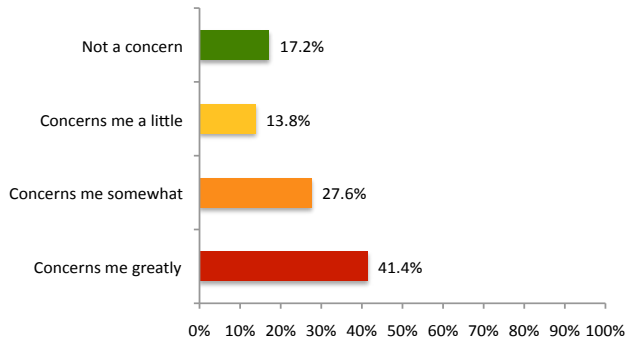
## Safety of intersections



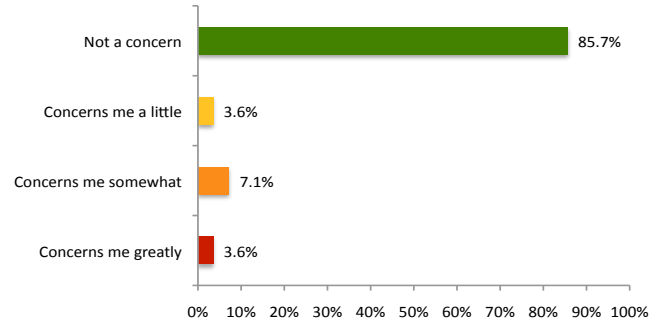
## Crossing guards — none or inadequate



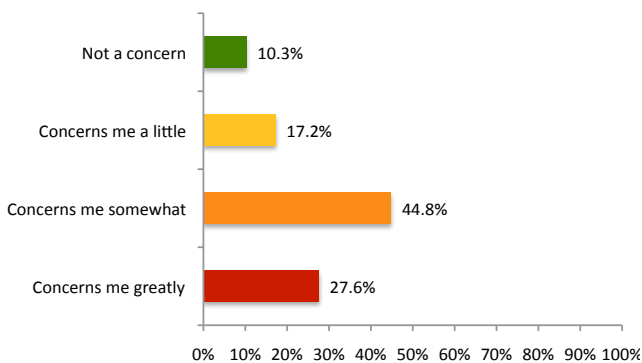
## Violence or crime



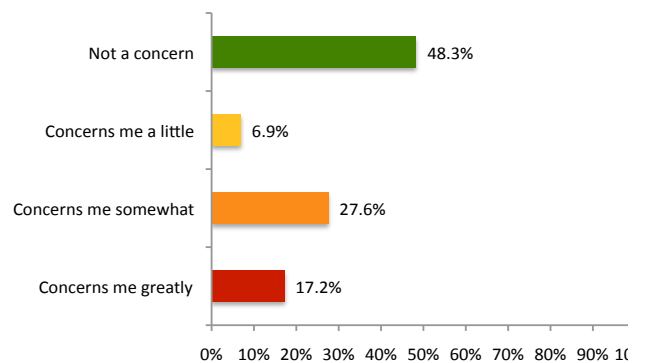
## Child does not want to bike or walk to school



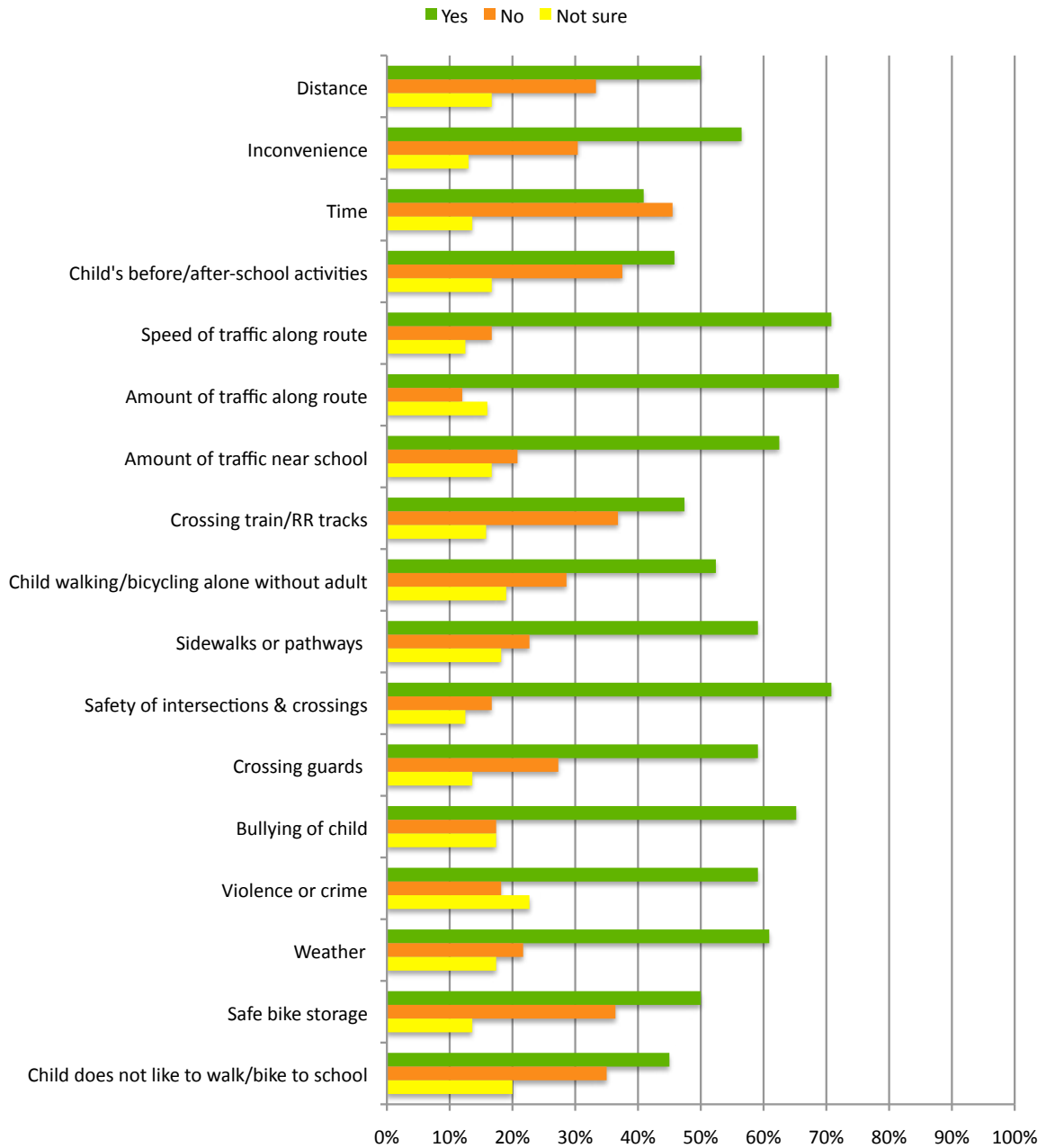
## Weather or climate



## Safe place for bike storage



## Would you probably allow your child to walk or bike to or from school more often if this problem(s) was changed or improved?

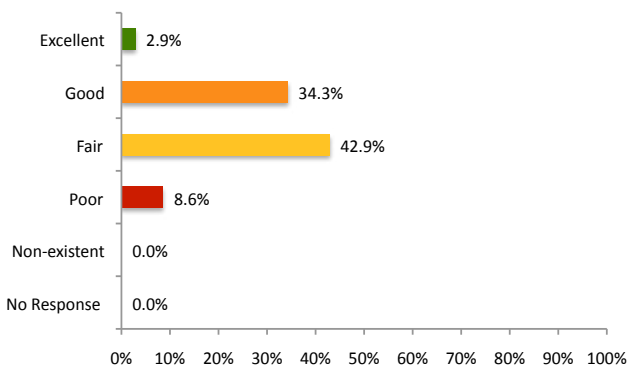




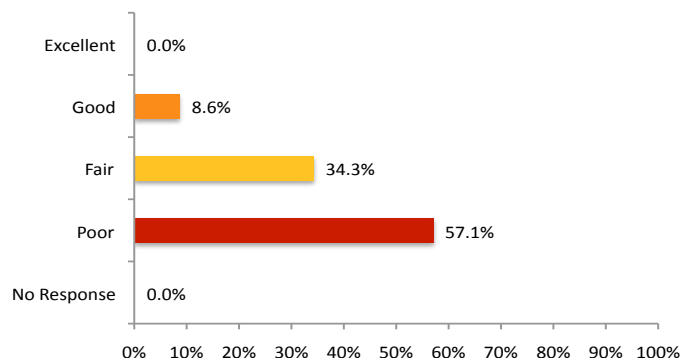


**Please rate the following community conditions that may be present on your child's route to school:**

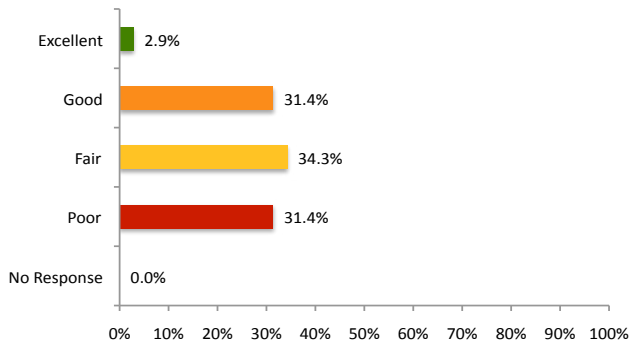
### Condition of Sidewalks



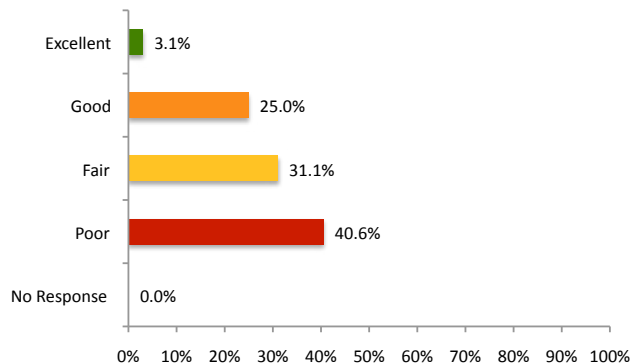
### Traffic and Driver Behavior



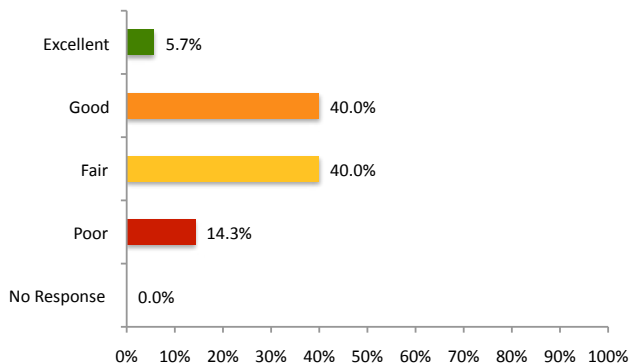
### Street Crossing



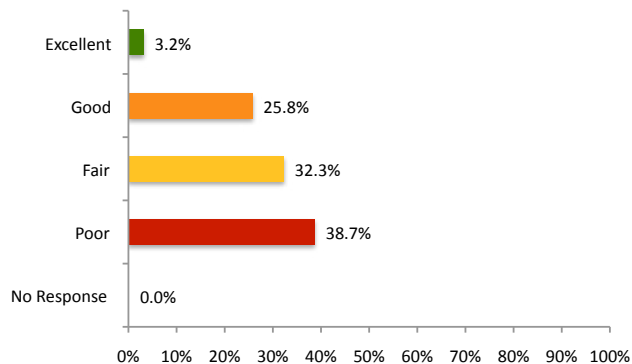
### Public Trail Access



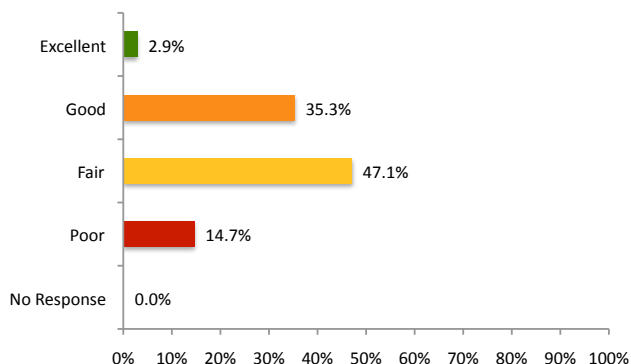
### Street Crossing Accessibility



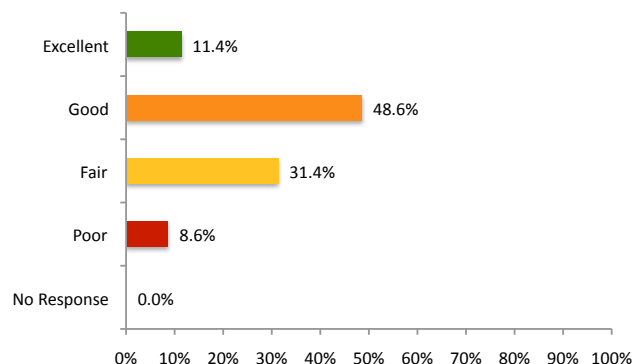
### Public Trail Condition/Ease of Use



### Landscape Appeal



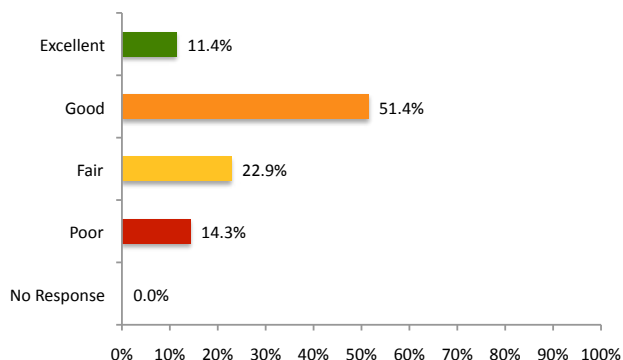
### Safety



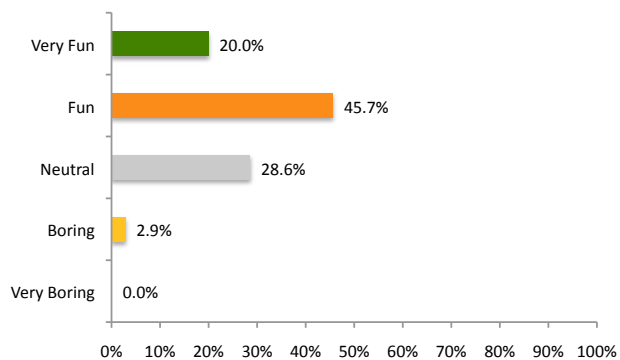
**Survey respondents had the opportunity to share personal comments on the survey. The exact comments will be shared with the Local Public Health. Following is a generalized list of the comments.**

- Lack of crossing guard on highway
- Safety issues concerning bridge closure at 16th and D
- Lack of accessibility for disabled child
- Speed and traffic control specifically 14th and E Avenue
- Safety concern related to derelict housing and stranger danger
- Signage
- 14th street too narrow & parking
- Ave E intersections
- Safety (i.e., "predators")

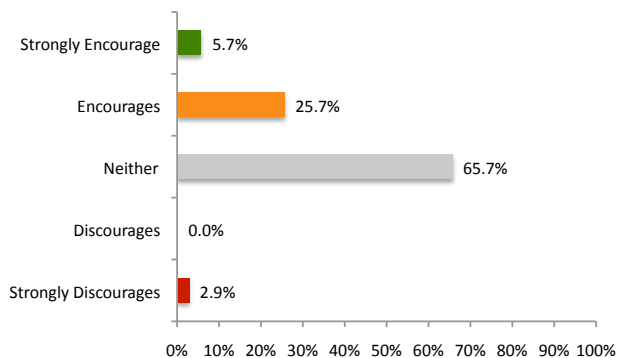
## Overall rating of school route walkability/ bikeability?



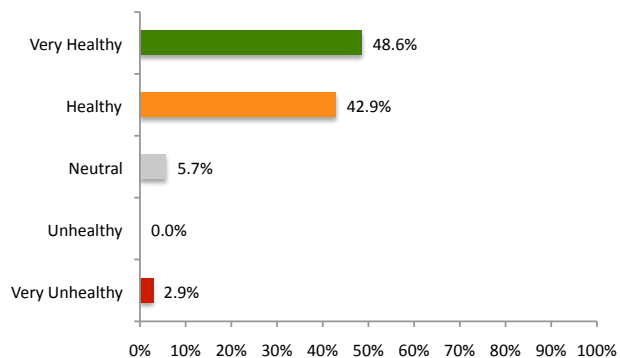
## How much FUN is walking or biking to/from school for your child?



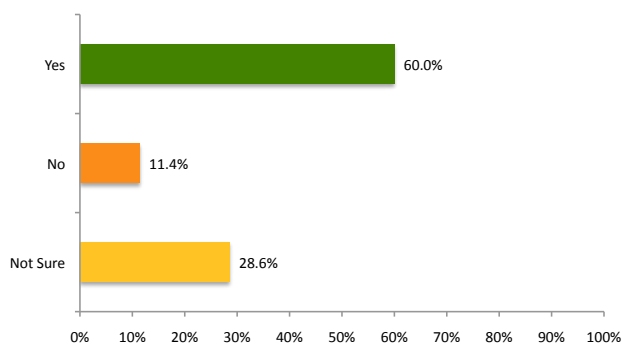
## In your opinion, how much does your child's school encourage or discourage walking and biking to/from school?



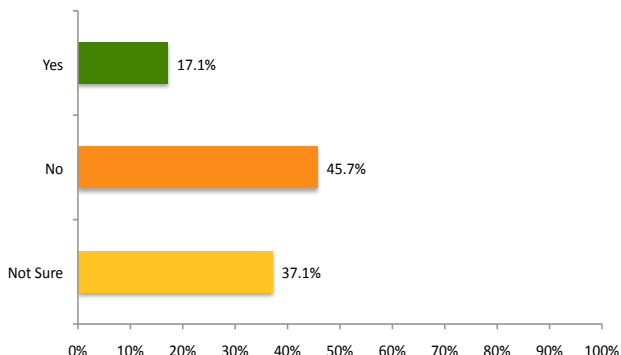
## How HEALTHY is walking or biking to/from school for your child?



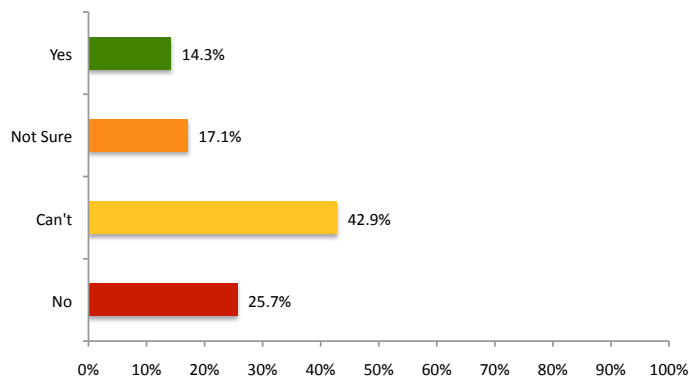
## Would you allow your child[ren] to participate in a Safe Routes to School program if adult supervision was provided?



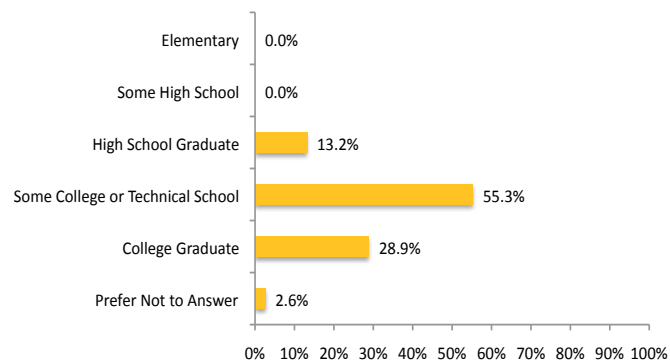
## Would you be interested in volunteering to help plan, develop or improve a Safe Routes to School program?



## Would you be interested in escorting (walking with) a group of children to school one or more times a week?

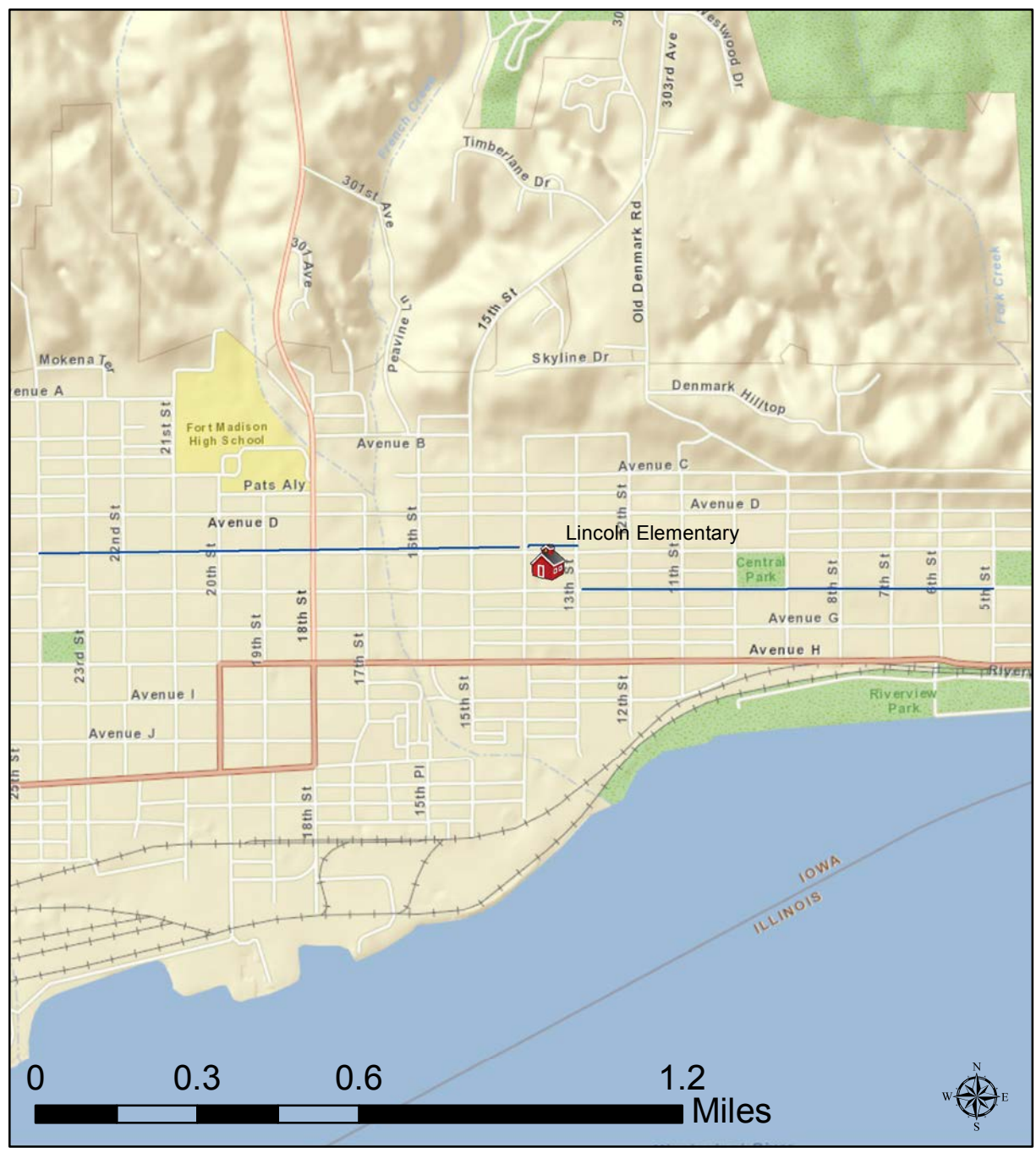


## What is the highest level of education you completed?



## arent/Child Identified Routes to School

As part of the Parent/Child survey, students identified the routes they would use to walk or bike to school. The map below shows the routes that were identified by multiple students. These routes should be considered as primary routes when developing the SRTS plan.

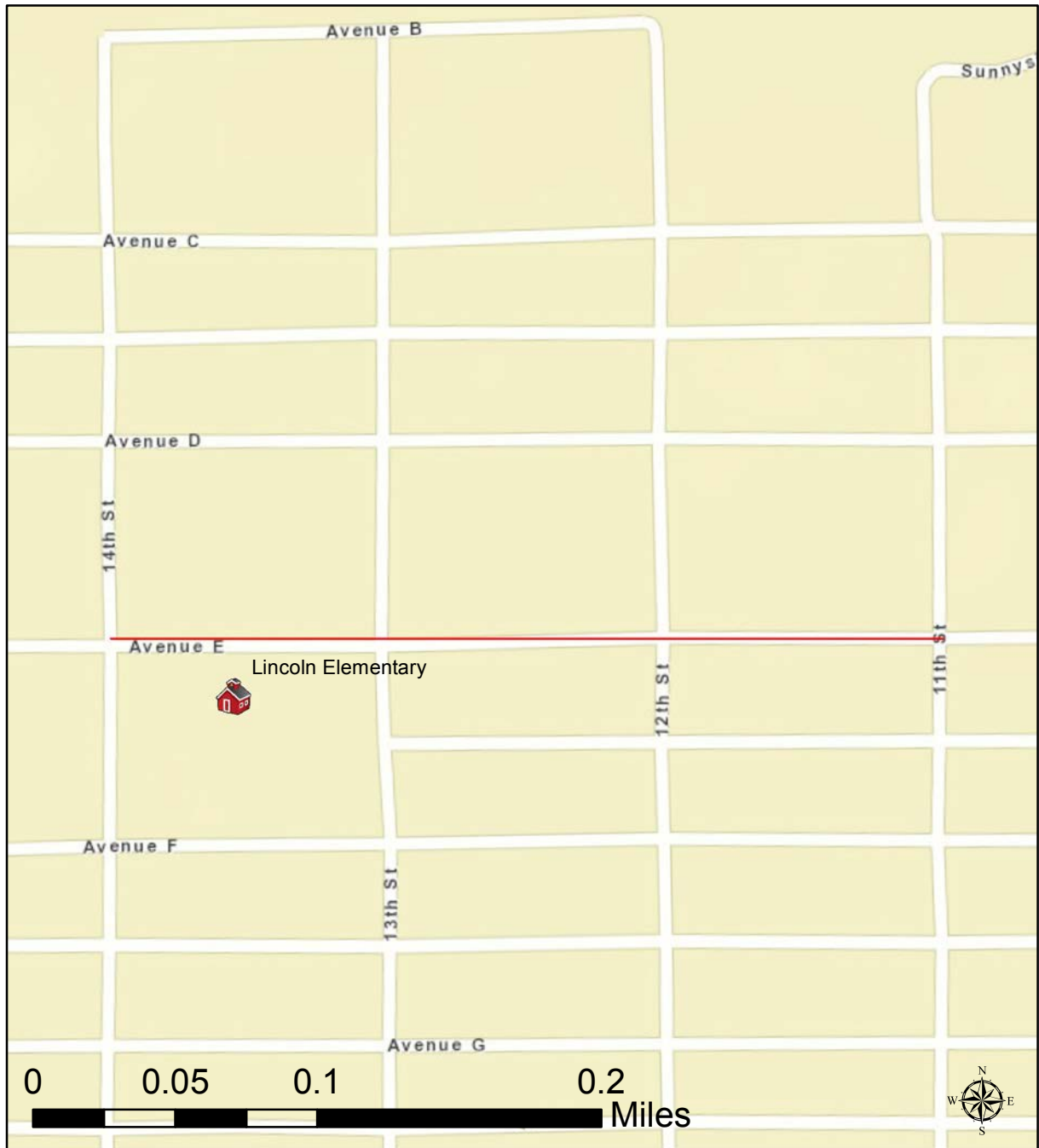


### Legend


- 5 - 8
- 9 - 13
- 14 - 21
- 22 - 29
- 30 - 35
- School

## arent/Child Identified Routes From School

As part of the Parent/Child survey, students identified the routes they would use to walk or bike from school. The map below shows the routes that were identified by multiple students. These routes should be considered as primary routes when developing the SRTS plan.

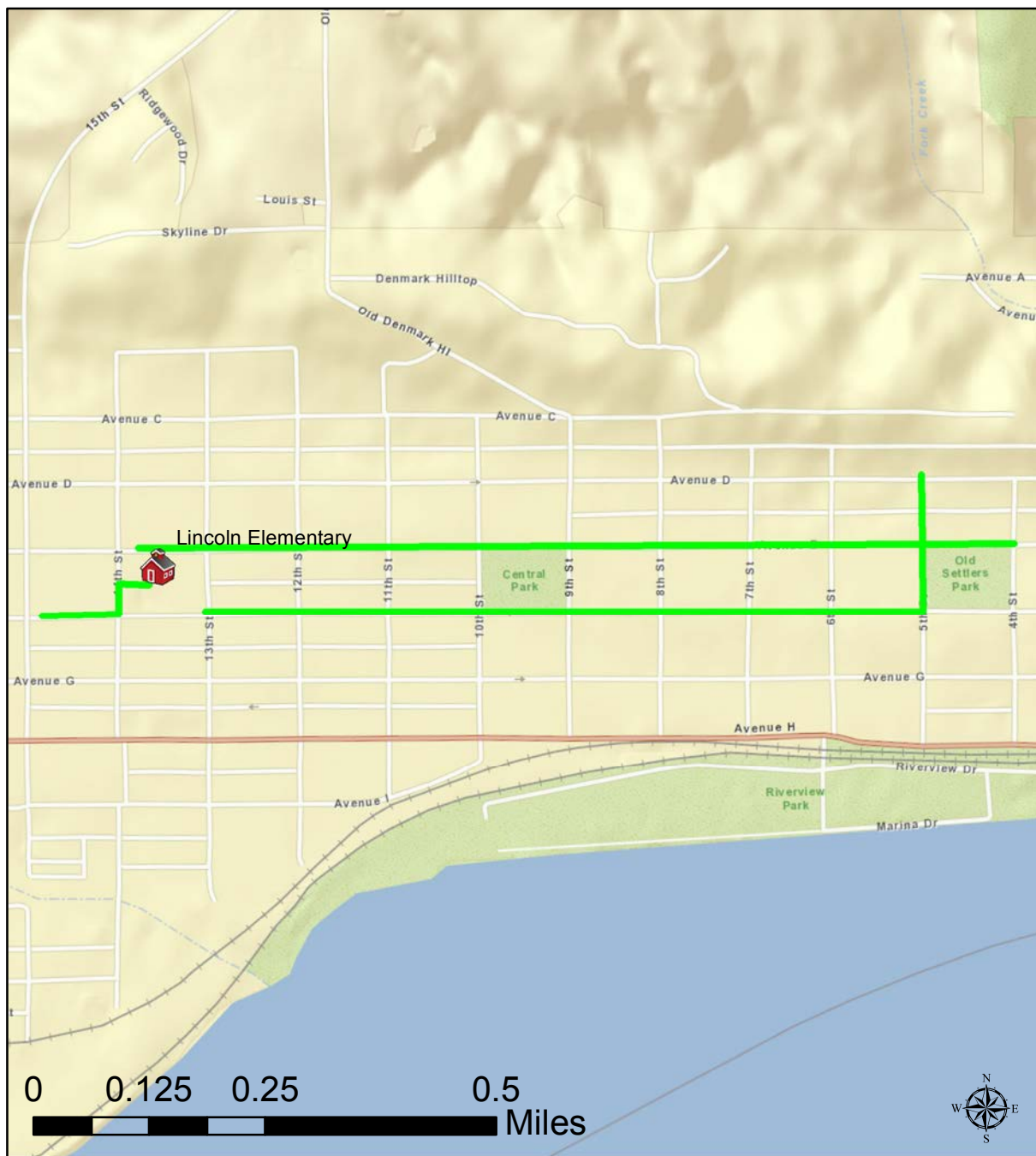


### Legend


— 5 - 6   
 - - 7 - 8   
 - - - 9 - 10   
 - - - - 11 - 13   
 - - - - - 14 - 16   
  School

## arent/Child Identified Routes Considered To School

As part of the Parent/Child survey, students identified the routes they would consider using to walk or bike to school. The map below shows the routes that were identified by multiple students. These routes should be considered when developing the SRTS plan.



### Legend

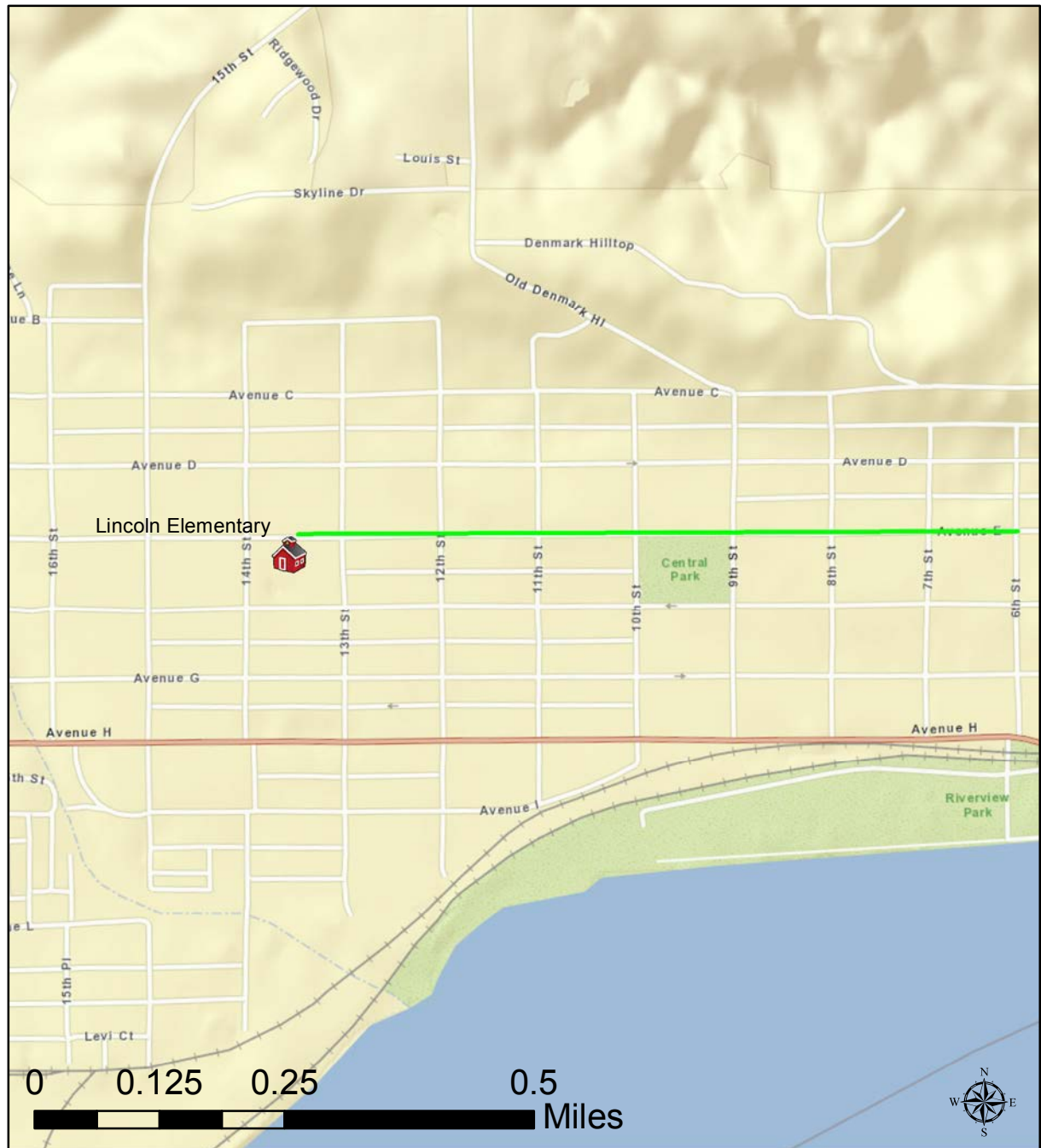
Consider Routes To School  School



# P

## arent/Child Identified Routes Considered From School

As part of the Parent/Child survey, students identified the routes they would consider using to walk or bike from school. The map below shows the routes that were identified by multiple students. These routes should be considered when developing the SRTS plan.



### Legend

— Consider Routes From School

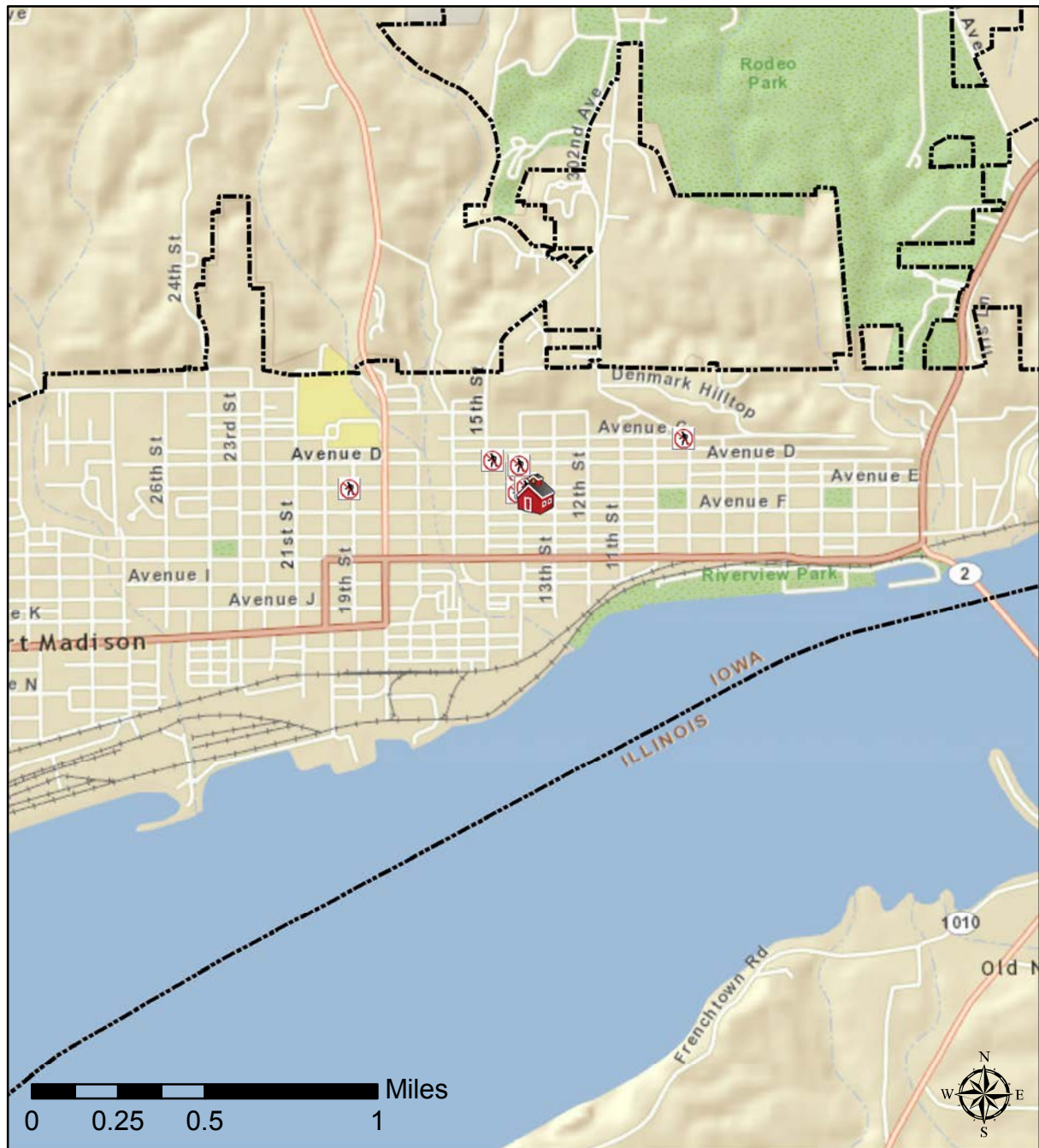








## Perceived Dangerous Intersections

The map below shows the intersections that parents perceived as dangerous. Notice that intersections identified are relatively close to the school location or along a major highway. The selection of a particular intersection was up to the judgment of the parent with no specified criteria established and was identified by parents who completed the Parent/Child online survey.

A more detailed view of these data is available on the [www.i-walk.org](http://www.i-walk.org) website under the School Reports/ Maps menu link.

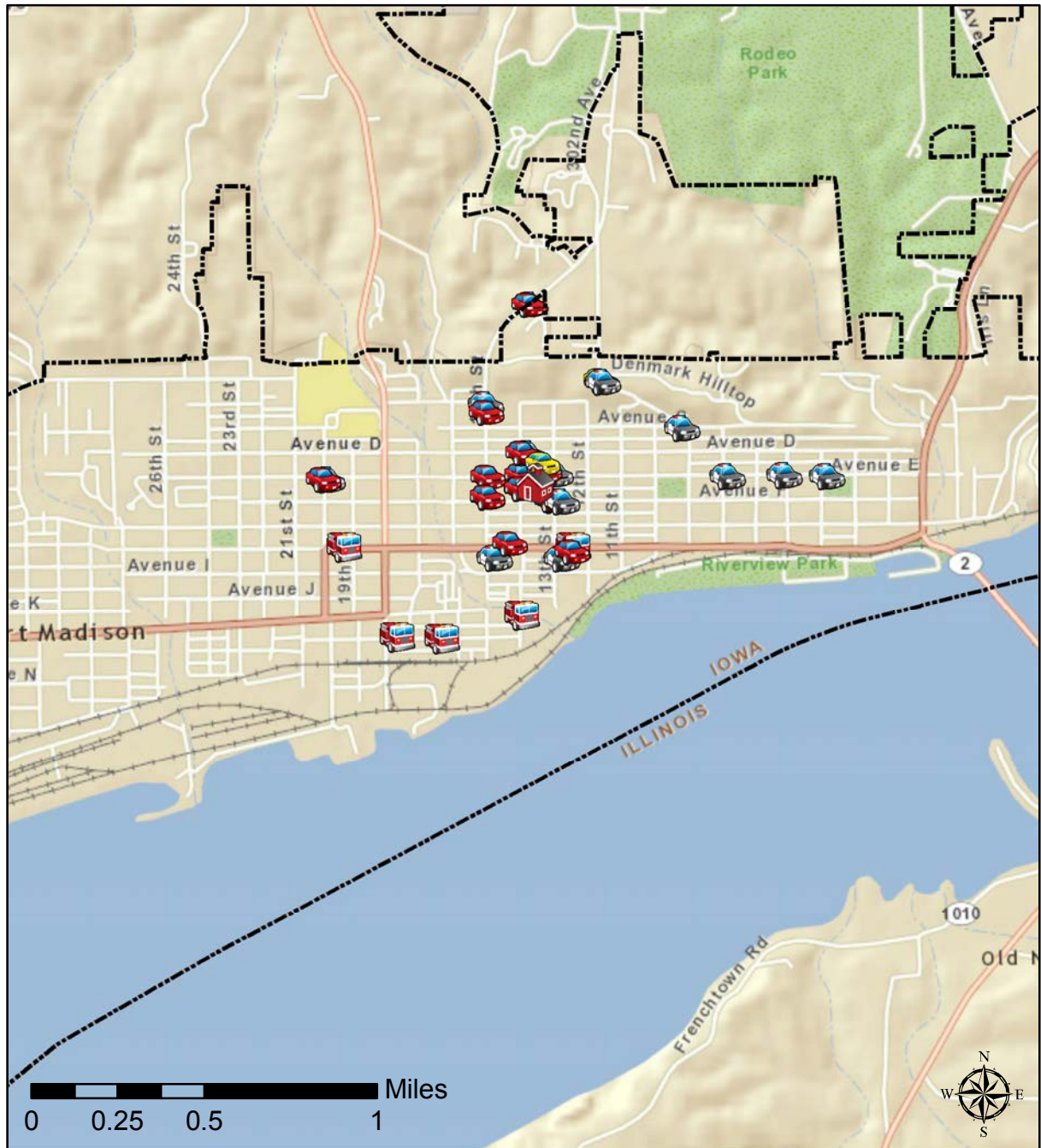


### Legend

-  School
-  City Boundary
-  Dangerous Intersections
-  Bus Stops

The map below shows that perceived traffic issues parents identified in the survey. The location of a particular traffic issue was up to the judgment of the parent with no specified criteria established and was identified by parents who completed the Parent/Child online survey.

A more detailed view of these data is available on the [www.i-walk.org](http://www.i-walk.org) website under the School Reports/ Maps menu link

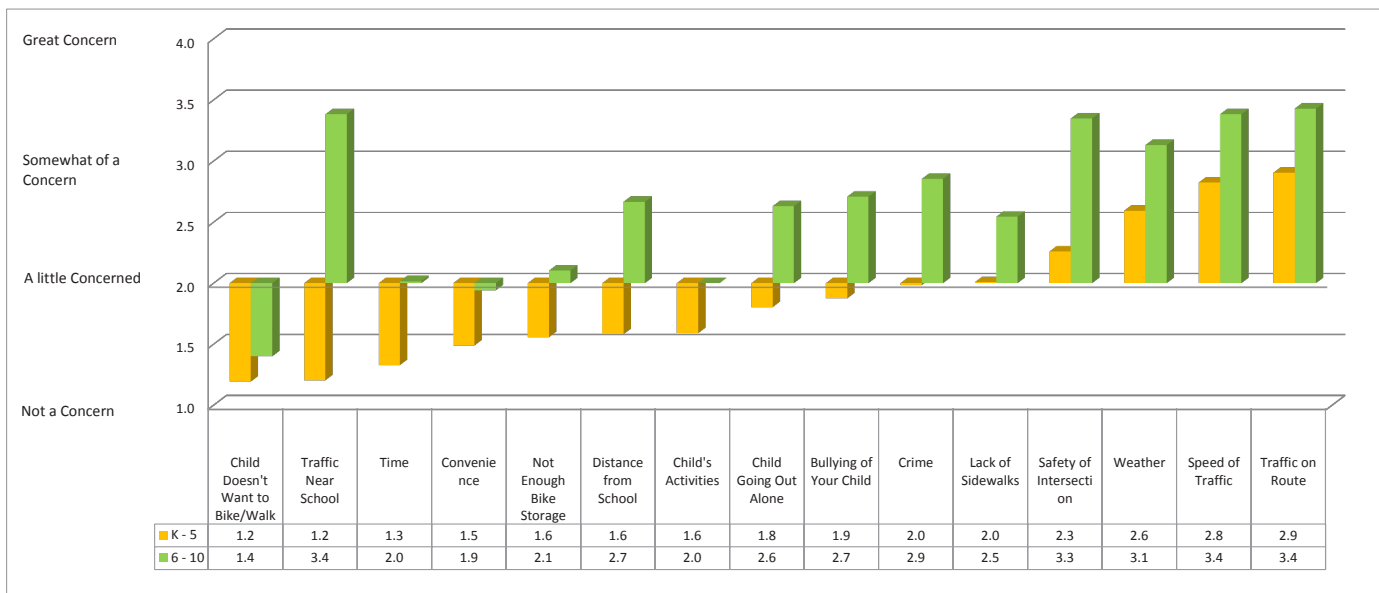


### Legend

- |           |               |                  |                 |
|-----------|---------------|------------------|-----------------|
| School    | City Boundary | Speeding Traffic | Driver Behavior |
| Bus Stops | Heavy Traffic | Large Trucks     |                 |

During the fall 2010, parents in the 12 I-WALK communities were asked to complete an online survey related to their child's active transport to school. A total of 656 parents completed the online survey. Parents were asked to respond to several questions related to level of concern regarding significant barriers impeding their child walking or biking to school. Questions were coded in terms of level of concern (i.e., 4 = "Great deal of concern", 1 = "Not a concern"). Significant differences by the grade level at which parents would allow their child to walk to school (e.g., K-5th vs. 6th-10th) were found on all identified barriers except for two: crossing train or railroad tracks and inadequate presence of crossing guards. Parents who indicated they would allow their child to walk/bike to school at a higher grade level (i.e., 6th – 10th grade) indicated a significantly greater level of concern for 15 out of 17 identified barriers (e.g., child does not want to bike/walk, traffic near school, time, convenience, not enough bike storage, distance from school, child's activities, child going out alone, bullying of your child, crime, lack of sidewalks, safety of intersection, weather, speed of traffic, distance from school, child's activities, child going out alone, bullying of your child).

**Parent Level of Concern Regarding Barriers to Active Transportation to School by Grade Level, Fall 2010**



**Parent Level of Concern Regarding Barriers to Active Transportation to School by Grade Level,  
Fall 2010**

Barriers	Grade level				p value
	k-5		6 -10		
	n	Mean	n	Mean	
Distance — school is too far away	239	1.6	69	2.7	0.00**
Inconvenience of allowing child to walk/bike to school — easier to drop off child/children on the way to/from work/other	233	1.5	68	1.9	0.00**
Time — not enough time for them to get to school	231	1.3	66	2.0	0.00**
Child's before or after-school activities	234	1.6	68	2.0	0.00**
Speed of traffic along route	238	2.8	68	3.4	0.00**
Amount of traffic along route	240	2.9	70	3.4	0.00**
Amount of traffic near school	239	3.0	68	3.4	0.01**
Crossing train/railroad tracks	235	1.2	67	1.4	0.06
Adults to walk or bike with — Child/children would be walking/ bicycling alone to school	234	1.8	65	2.6	0.00**
Sidewalks or pathways — none or inadequate	236	2.0	68	2.5	0.00**
Safety of intersections and crossings	238	2.8	69	3.4	0.00**
Crossing guards — none or inadequate	235	2.3	68	2.5	0.09
Violence or crime — stranger danger	239	2.0	68	2.9	0.00**
Bullying of your child	80	1.9	24	2.7	0.00**
Weather or climate	241	2.6	69	3.1	0.00**
Safe place for bike storage	235	1.6	68	2.1	0.00**
Child does not like to walk or bicycle to school	232	1.2	66	1.4	0.01**

\*\* p ≤ .01

Parents also responded to questions related to level of concern regarding significant barriers impeding their child walking/ biking to school and if their child had requested permission to walk/bike to school. Questions were coded in terms of level of concern (i.e., 4 = "Great deal of concern"; 1 = "Not a concern"). There is a significant correlation between parents level of concern and whether or not parents indicated their children requested permission to walk or bike to school (see table and figure below). Parents who indicated their child had not requested permission to walk/bike to school indicated a significantly greater level of concern on several barriers including:

- Distance from school,
- Inconvenience of allowing child to walk/bike to school,
- Time required to get to school,
- Traffic speed,
- Amount of traffic,
- Inadequate sidewalks,
- Weather, and
- Child not liking to walking/biking.



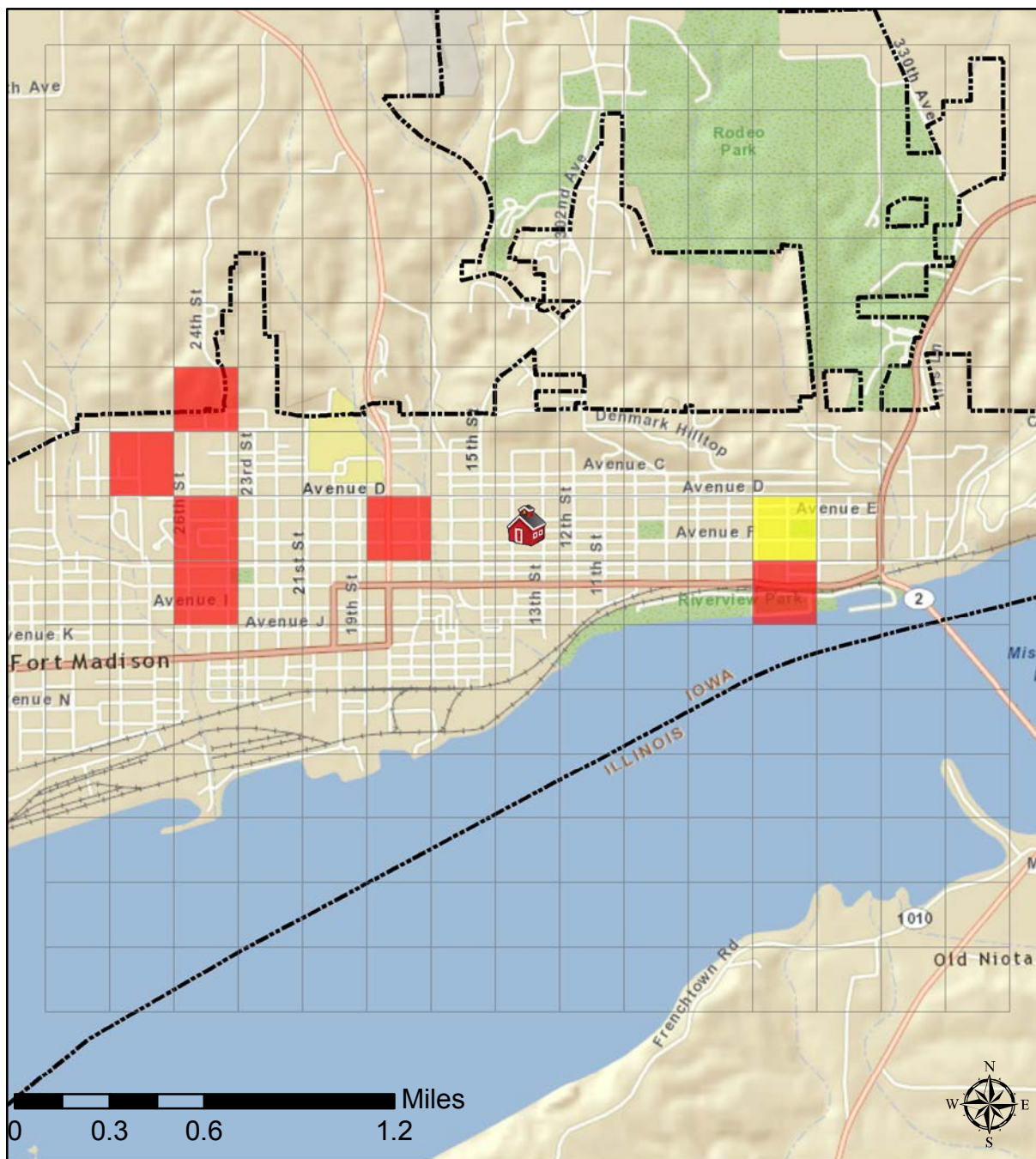


Barriers	No		Yes		p value
	n	Mean	n	Mean	
Distance — school is too far away	102	2.75	249	1.64	.00**
Inconvenience of allowing child to walk/bike to school — easier to drop off child/children on the way to/from work/other	96	1.89	246	1.51	.00**
Time — not enough time for them to get to school	95	2.03	242	1.38	.00**
Child's before or after-school activities	95	1.82	246	1.64	.12
Speed of traffic along route	96	3.31	250	2.90	.00**
Amount of traffic along route	97	3.36	253	2.98	.00**
Amount of traffic near school	95	3.16	252	3.04	.37
Crossing train/railroad tracks	95	1.23	247	1.27	.69
Adults to walk or bike with — Child/children would be walking/ bicycling alone to school	94	2.27	245	2.00	.06
Sidewalks or pathways — none or inadequate	94	2.61	249	2.08	.00**
Safety of intersections and crossings	96	2.95	250	2.91	.78
Crossing guards — none or inadequate	95	2.49	247	2.33	.28
Violence or crime — stranger danger	97	2.35	250	2.18	.20
Bullying of your child	27	2.44	88	1.97	.05
Weather or climate	97	2.92	254	2.68	.04
Safe place for bike storage	96	1.81	247	1.64	.14
Child does not like to walk or bicycle to school	94	1.39	244	1.21	.02









\*\*  $p \leq .01$

## arent/Child Survey: Concern Regarding Distance

The Parent/Child survey asked parents what level of concern they had regarding the distance to the school. To keep individual responses to this question anonymous, the results were spatially aggregated into a grid and the percent of responses indicating concerns me greatly or concerns me somewhat was calculated. The SRTS planning team should take a closer look at those grid areas that are colored; paying particular attention to the orange and red areas.



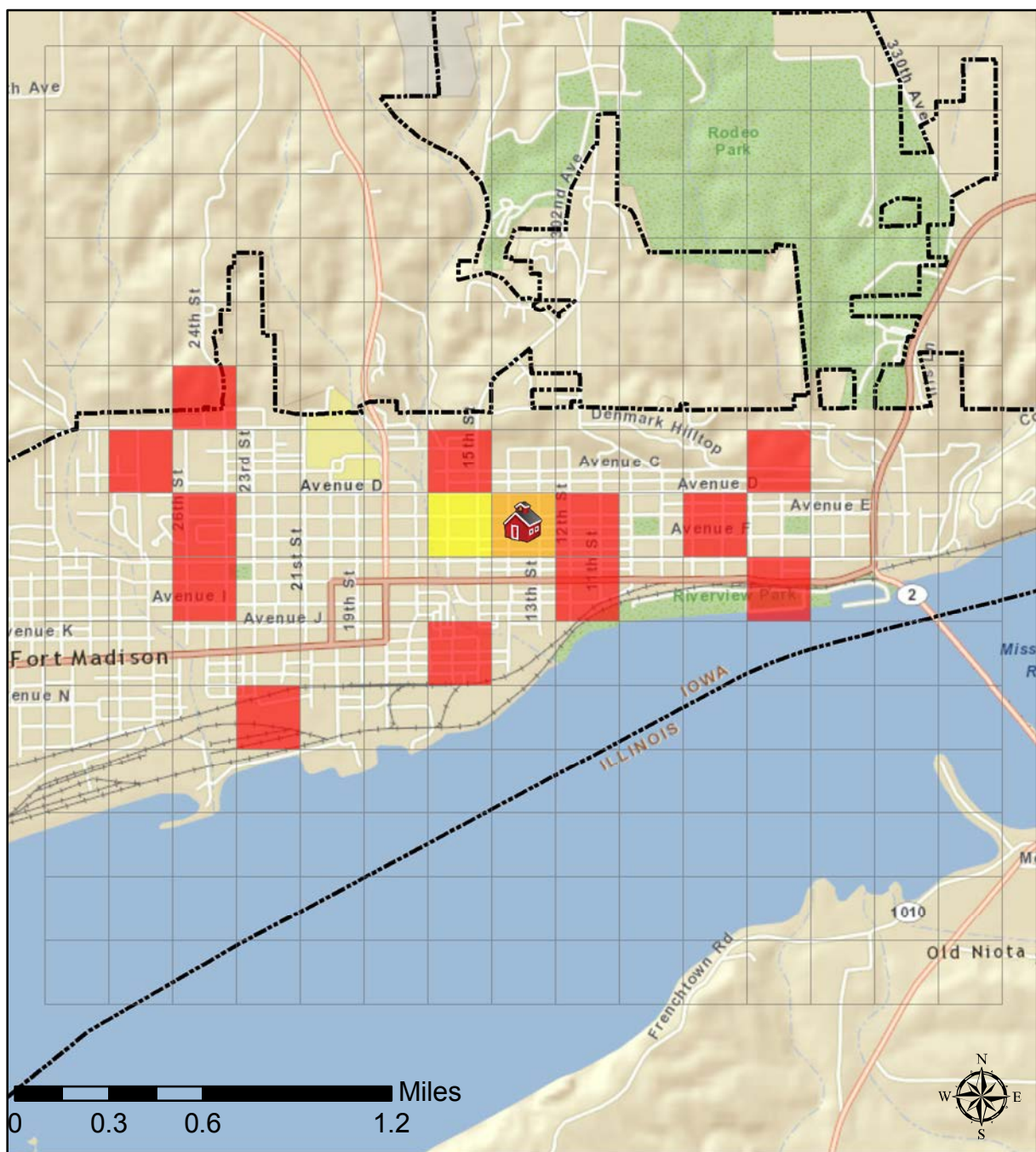
### Legend

-  School
-  Bus Stops
-  City Boundary
-  0
-  0 - 25%
-  25 - 50%
-  50 - 75%
-  75 - 100%











## arent/Child Survey: Concern Regarding Traffic Speed

The Parent/Child survey asked parents what level of concern they had in regards to the speed of traffic along the route to their school. To keep individual responses to this question anonymous, the results were spatially aggregated into a grid and the percent of responses indicating concerns me greatly or concerns me somewhat was calculated. The SRTS planning team should take a closer look at those grid areas that are colored; paying particular attention to the orange and red areas.



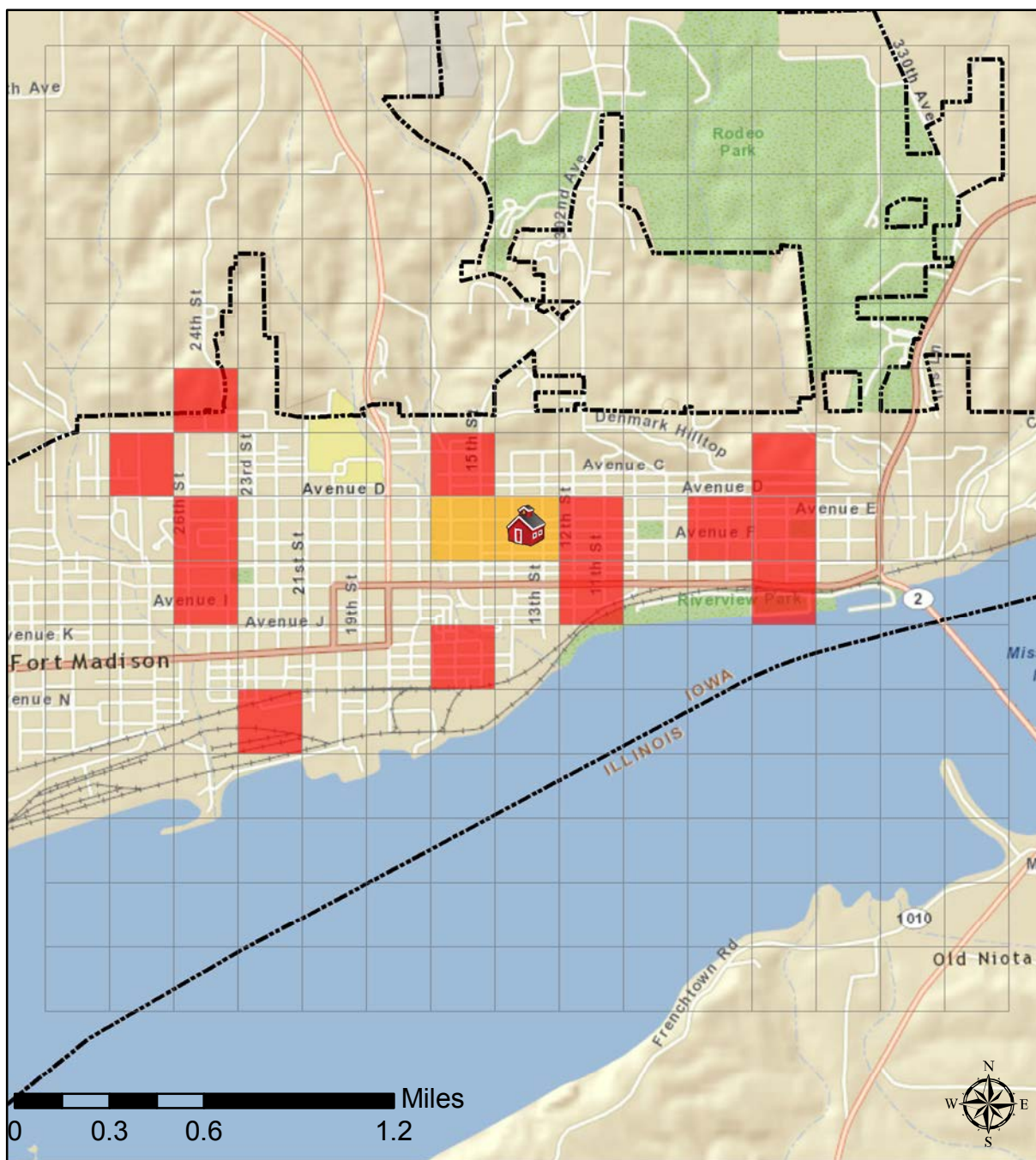
### Legend

-  School
-  Bus Stops
-  City Boundary
-  0%
-  0 - 25%
-  25 - 50%
-  50 - 75%
-  75 - 100%





## arent/Child Survey: Concern Regarding School Traffic

The Parent/Child survey asked parents what level of concern they had in regards to the amount of traffic near the school. To keep individual parents responses to this question anonymous, the results were spatially aggregated into a grid and the percent of responses indicating concerns me greatly or concerns me somewhat was calculated. The SRTS planning team should take a closer look at those grid areas that are colored; paying particular attention to the orange and red areas.



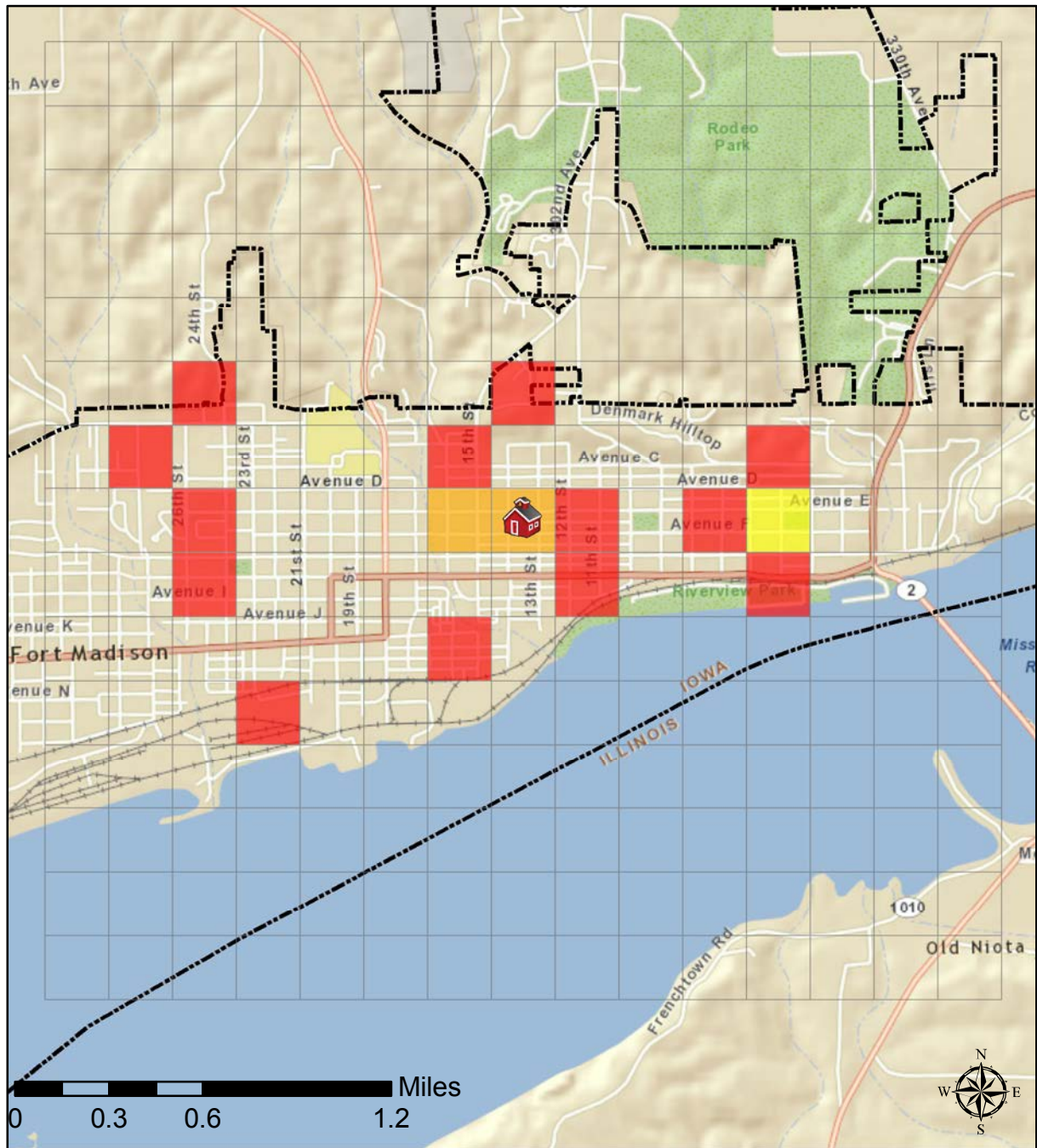
### Legend

-  School
-  Bus Stops
-  City Boundary
-  0%
-  0 - 25%
-  25 - 50%
-  50 - 75%
-  75 - 100%



## arent/Child Survey: Concern Regarding Traffic

The Parent/Child survey asked parents what level of concern they had in regards to the general amount of traffic. To keep individual responses to this question anonymous, the results were spatially aggregated into a grid and the percent of responses indicating concerns me greatly or concerns me somewhat was calculated. The SRTS planning team should take a closer look at those grid areas that are colored; paying particular attention to the orange and red areas.



### Legend

-  School
-  Bus Stops
-  City Boundary
-  0%
-  0 - 25%
-  25 - 50%
-  50 - 75%
-  75 - 100%

# GPS Training Session

GPS Walkability Workshops trained citizens to conducted inventory of their community using iPhones equipped with a copy of the ESRI ArcGIS app that was customized by ISUEO for the purpose of mapping SRTS infrastructure and saving this information to a geographic information system (GIS) at ISU.

During a one-day workshop, the I-WALK team trained these volunteers in each of the communities to use the iPhone app. The volunteers then took to the streets to collect the data. Volunteers were asked to evaluate intersections and mid-block areas and to document any additional resources that may impact the walkability of the area around the school.

The following figures show the questions the volunteers were asked at each location and the additional features that could be mapped as well as the iPhone interface. Answer options identified in bold text were default answers for each question. Additional data is also available online at [www.i-walk.org](http://www.i-walk.org).

## I-WALK GPS Assessment

### Are there sidewalks mid-block?

- ◆ No sidewalks on either side
- ◆ One side of street
- ◆ Complete on both sides of street
- ◆ Incomplete on one side of the street
- ◆ Incomplete on both sides of the street
- ◆ Incomplete on one side & no sidewalk on other
- ◆ Cannot tell
- ◆ others

What is the condition of the sidewalk?	<ul style="list-style-type: none"> <li>• Good - free of major cracks and uneven area, can easily walk or bicycle</li> <li>• Fair - has some major cracks and uneven areas, but still able to ride a bicycle</li> <li>• Poor - is uneven or has major cracks or missing concrete throughout</li> </ul>
Is the sidewalk wide enough for two adults to walk side by side?	<ul style="list-style-type: none"> <li>• <b>Yes</b></li> <li>• No</li> <li>• Unsure</li> </ul>
Is the sidewalk setback from fast-moving traffic?	<ul style="list-style-type: none"> <li>• <b>Yes</b></li> <li>• No</li> <li>• Unsure</li> </ul>
Is the route pleasant to walk? (no litter, visually interesting)	<ul style="list-style-type: none"> <li>• <b>Yes</b></li> <li>• No</li> <li>• Unsure</li> </ul>
Is street lighting provided?	<ul style="list-style-type: none"> <li>• <b>Yes</b></li> <li>• No</li> <li>• Unsure</li> </ul>
Comment:	

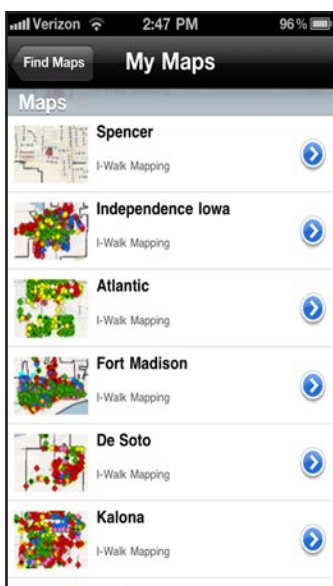
### Would an Elementary student feel safe crossing?

- ⊕ -
- ⊕ Maybe
- ⊕ No
- ⊕ Yes

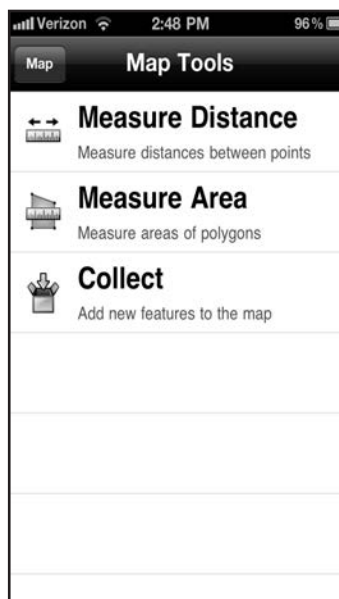
How many streets intersect? : 1 , 2 , 3 , 4	
How is traffic controlled at the intersection?	<ul style="list-style-type: none"> <li>• Yield</li> <li>• One way stop</li> <li>• Two way stop</li> <li>• Three Way Stop</li> <li>• Four Way Stop</li> <li>• Roundabout</li> <li>• Traffic Light</li> <li>• Flashing alert</li> <li>• No traffic control</li> </ul>
Is there a traffic light pedestrian crossing signal? (Walk/Don't Walk)	<ul style="list-style-type: none"> <li>• Yes</li> <li>• <b>No</b></li> </ul>
Is the road too wide to cross safely?	<ul style="list-style-type: none"> <li>• Yes</li> <li>• <b>No</b></li> <li>• Unsure</li> </ul>
Are there items that make it difficult for you to see traffic or for traffic to see you?	<ul style="list-style-type: none"> <li>• Yes</li> <li>• <b>No</b></li> </ul>
Do the sidewalks have curb cuts/ramps?	<ul style="list-style-type: none"> <li>• <b>Yes</b></li> <li>• Yes, but curb cut/ramp needs improvement</li> <li>• No</li> </ul>
Are their painted crosswalks?	<ul style="list-style-type: none"> <li>• Yes</li> <li>• Yes, but the lines are worn and not sufficiently visible</li> <li>• <b>No</b></li> </ul>
How many streets have painted crosswalks? :	
Is there enough time to cross the street?	<ul style="list-style-type: none"> <li>• <b>Yes</b></li> <li>• No</li> </ul>
Do you think an adult would feel safe crossing this street?	<ul style="list-style-type: none"> <li>• <b>Yes</b></li> <li>• No</li> </ul>
Do you think your grandma would feel safe crossing this street?	<ul style="list-style-type: none"> <li>• <b>Yes</b></li> <li>• No</li> </ul>
Comment:	

### Additional Features.

- |                               |                           |
|-------------------------------|---------------------------|
| Bike Rack                     | Often has standing water  |
| Bus Stop                      | Other                     |
| Cars blocking sidewalk        | Scary Dogs                |
| Cracked Sidewalk              | Sidewalk ends             |
| Crossing Guard                | Sidewalk with Stairs      |
| Crosswalk not at intersection | Vegetation Blocking Route |
| Large Truck Traffic           | others                    |



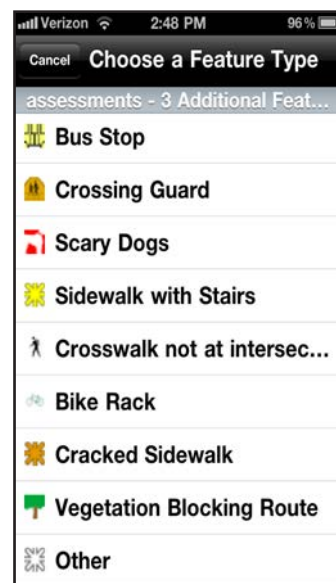
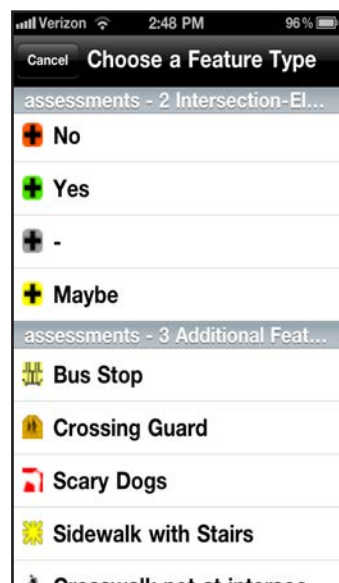
Selecting the community from the list of maps displayed a map of the community on the screen.



The map of the community could be zoomed and panned as necessary. Points already collected by other volunteers (red dot) were dynamically shared across devices.



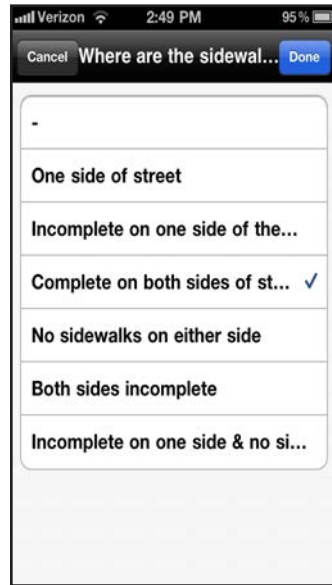
Opening the toolbox icon, users could collect new features to add to the map.



Features could be mapped at an intersection, midblock or as a random event.



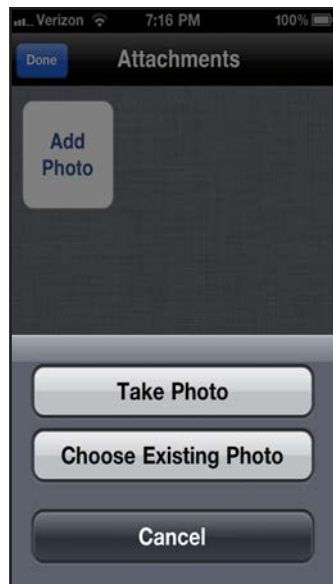
Once a type of feature was selected, questions regarding the feature were presented.



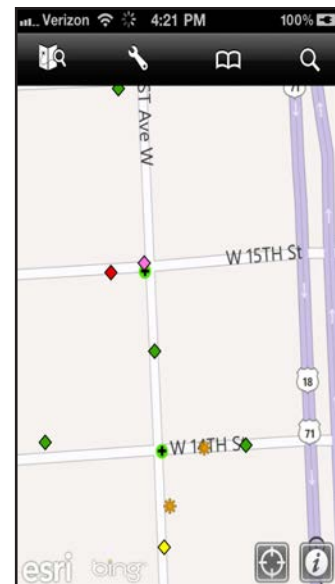
Questions were answered by selecting the correct result from a pick list.



After answering the questions, the user could locate the feature on the map. This could be done by clicking on the correct location on the map, or using the GPS to place the feature at the current location.



In addition to collecting feature location and attributes, users had the option of taking a photo and saving it as part of the documentation.

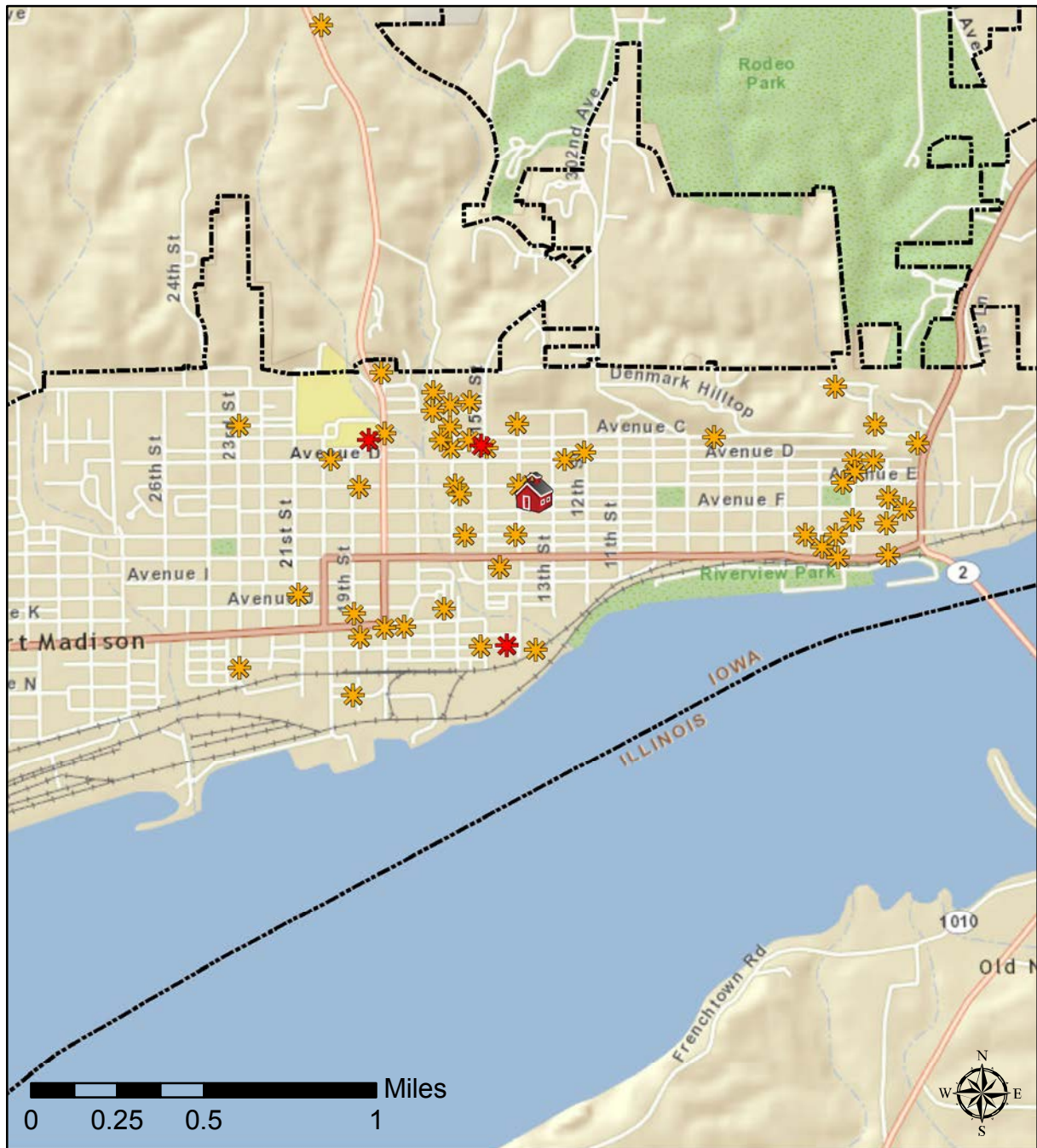


Points saved with the iPhone were automatically transmitted back to ISU's GIS server where they could be shared with other devices and later used in analysis.



# amaged Sidewalks

Areas with damaged sidewalks were identified on the Parent/Child survey and by the volunteers using the iPhone device.



## Legend



School



City Boundary



Parent Survey



Field Study (GPS)

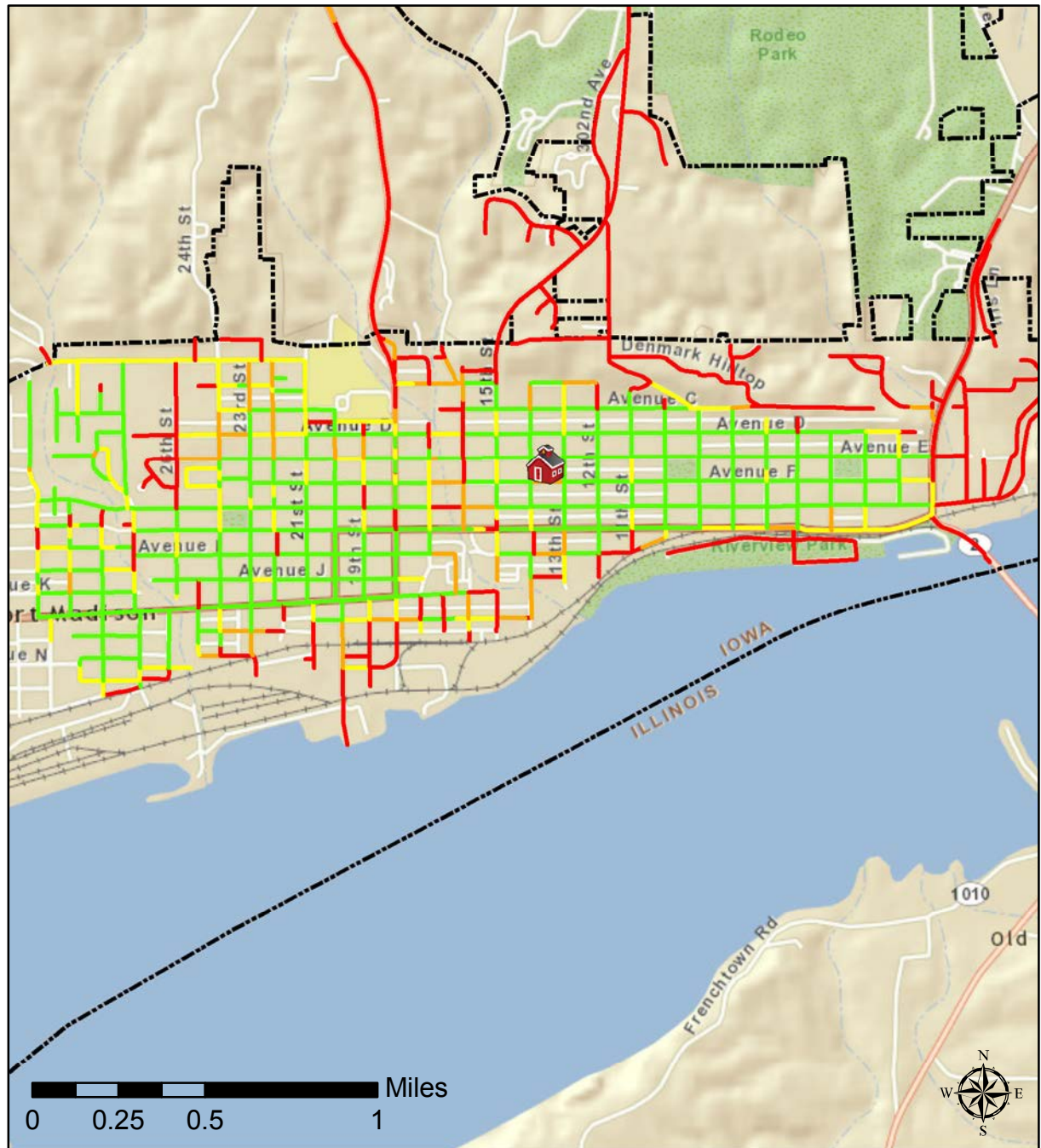


Bus Stops



# Sidewalk Availability

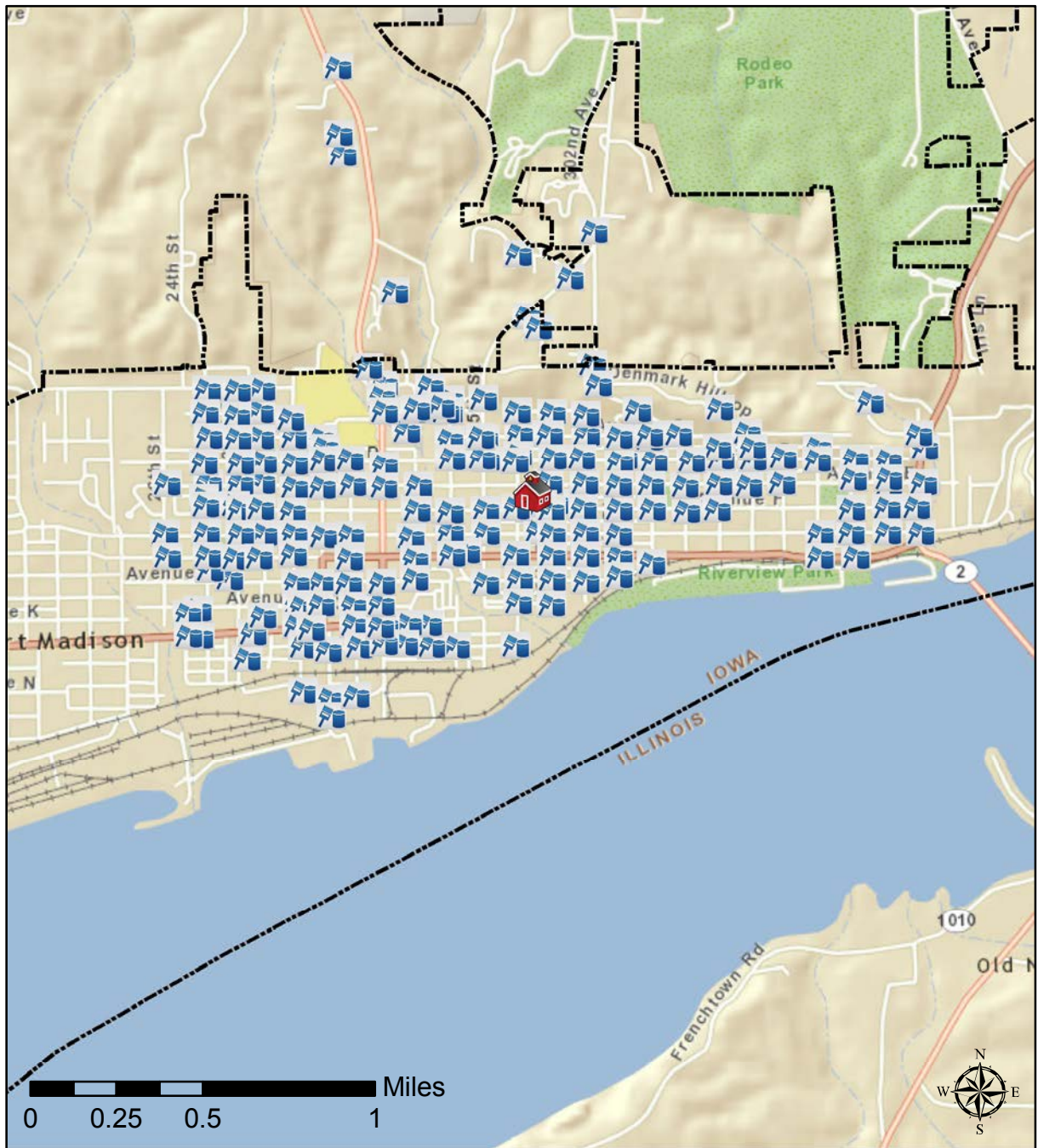
Using aerial photography and the data collected by the volunteers using the iPhone SRTS infrastructure tool, the map below identifies the streets that have incomplete sidewalks, sidewalks on one or both sides of streets with no sidewalks at all.




## Legend

-  School
-  Bus Stops
-  City Boundary
-  Both Sides
-  One Side
-  Incomplete
-  None

Using the iPhone devices, volunteers identified areas that did not have painted crosswalks.



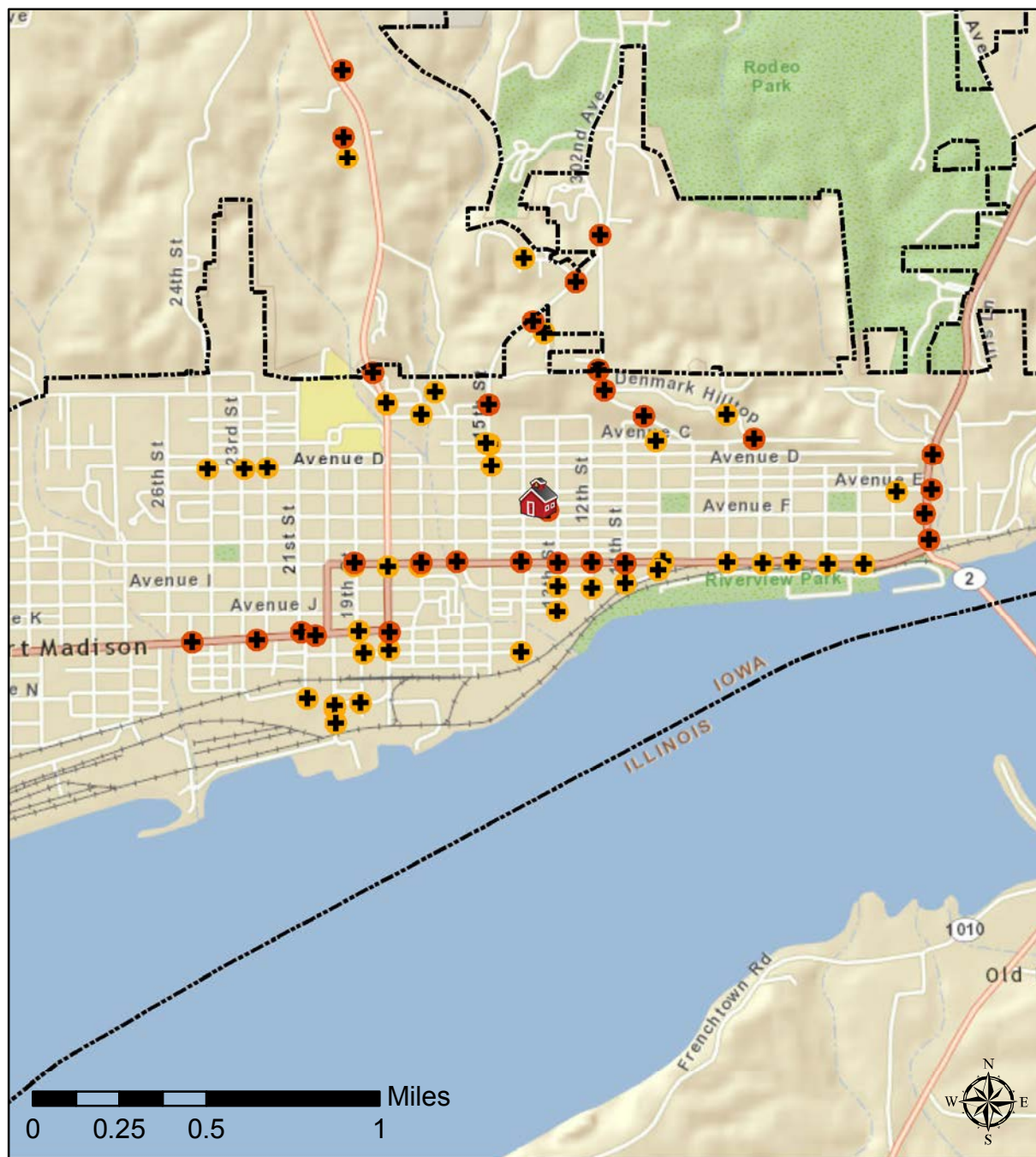
## Legend

-  School
-  Non-Painted Crosswalks
-  Bus Stops
-  City Boundary



## ould Not Feel Safe Crossing the Street

Using the iPhone devices, volunteers identified areas that they thought as an adult a student would not feel safe crossing. In addition, specific intersections were also identified as being equally unsafe for an adult to cross. Because this data was collected while on foot, a larger area is brought into consideration.

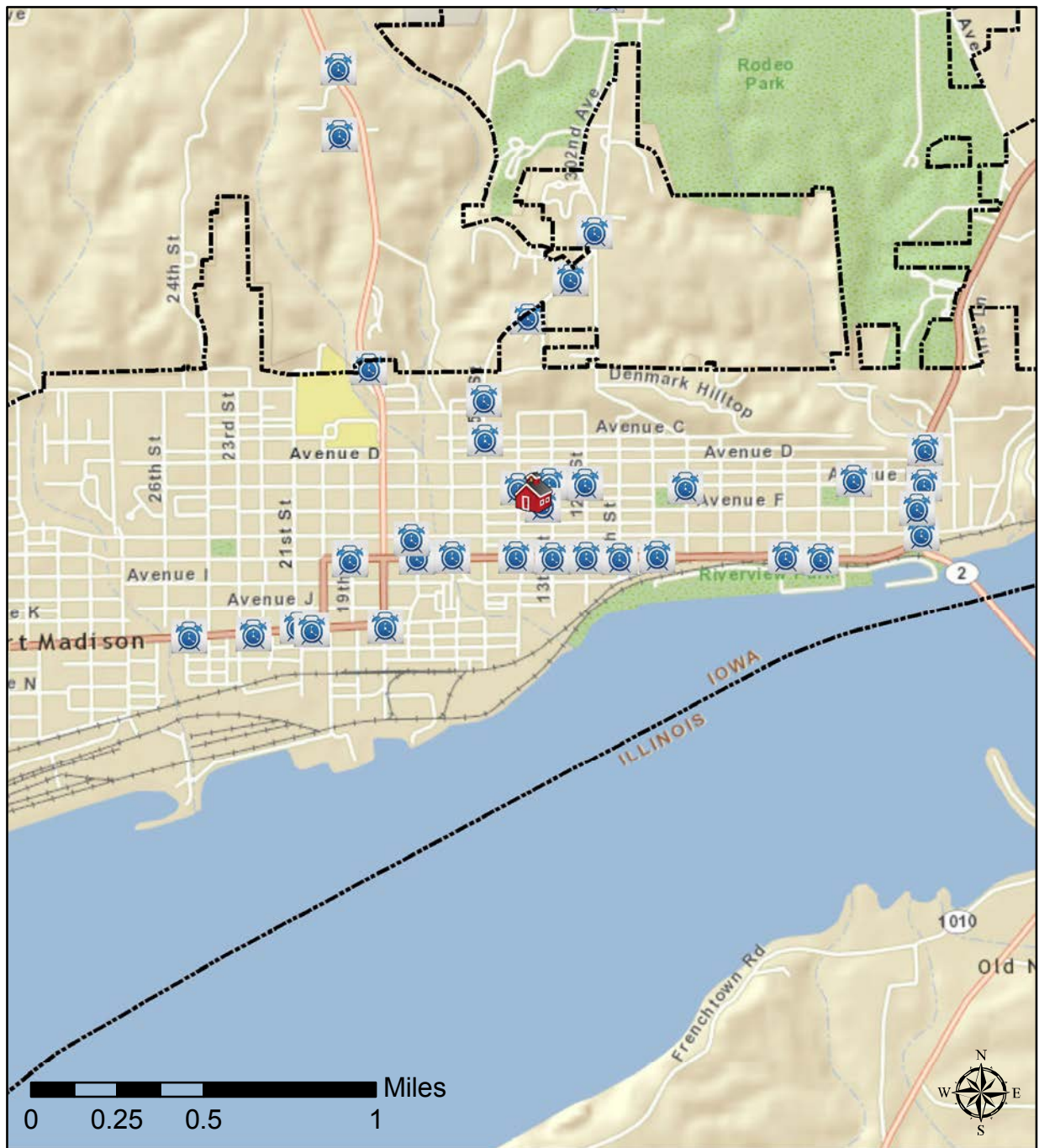


### Legend

-  School
-  City Boundary
-  Adult Wouldn't Feel Safe
-  Student Wouldn't Feel Safe
-  Bus Stops

# Insufficient Time to Cross

Using the iPhone devices, volunteers identified intersections where the data collector did not consider there to be sufficient time to cross the street safely.



## Legend

-  School
-  Bus Stops
-  City Boundary
-  Not Enough Time

The goal of SRTS programs is to give a community the opportunity to make walking and bicycling to school safer and more accessible for children, including those with disabilities, and to increase the number of children who choose to walk and bicycle. On a broader level, SRTS programs can enhance children's health and well-being, ease traffic congestion near the school and improve air quality and improve community members' overall quality of life.

Communities are encouraged to tailor a combination of engineering, education, encouragement, and enforcement strategies to address the specific needs of their schools.

## Engineering

"Engineering" is a broad concept used to describe the design, implementation, operation and maintenance of traffic control devices or physical measures, including both low and high-cost capital measures. Engineering approaches can improve children's safety to enable more bicycling and walking. Engineering should also improve the accessibility of walking and bicycling routes for children with disabilities.

## Enforcement

Enforcement, especially for SRTS programs, is a network of community members working together to promote safe walking, bicycling and driving. This can be accomplished through safety awareness, education and, where necessary, the use of ticketing for dangerous behaviors. Enforcement includes students, parents, adult school crossing guards, school personnel and neighborhood watch programs working in conjunction with law enforcement to enforce rules for safe walking, bicycling and driving.

## Encouragement

Encouragement strategies are about having fun, they generate excitement and interest in walking and bicycling. Special events, mileage clubs, contests and ongoing activities all provide ways for parents and children to discover, or rediscover, that walking and bicycling are doable and a lot of fun.

In particular, encouragement and education strategies are closely intertwined, working together to promote walking and bicycling by rewarding participation and educating children and adults about safety and the benefits of bicycling and walking.

## Education

While education dovetails with engineering and enforcement, it is most closely linked to encouragement strategies. For example, children may learn pedestrian and bicyclist safety skills and then get the chance to join a mileage club that rewards children for walking or bicycling to school. Encouragement activities also offer "teachable moments" to reinforce pedestrian and bicyclist safety education messages.

## Evaluation

Evaluation is used to determine if the aims of the strategies are being met and to assure that resources are directed toward efforts that show the greatest likelihood of success. Also, evaluation can identify needed adjustments to the program while it is underway. This information describes how to conduct a SRTS program evaluation that is tailored to that program's objectives and strategies.





The first step of SRTS is to do an assessment like I-WALK. Once the infrastructure data is collected, the next step is to observe *how* kids get to and from school. Communities are encouraged to spend time observing how and where students cross the street. Using the data provided in the infrastructure assessment and parent survey as a guide, evaluators can determine where observations should start.

The primary focus area should be ½ mile around the elementary school. Past this point it becomes increasingly unlikely that a child will walk and if the first one-half mile is not walkable, it does not matter what the second one-half mile is like.

After the observation step has been completed, the community should use the collected data and observations to prioritize where to begin improvements.

The following recommendations are “general” recommendations to all communities. The word “general” does not imply that they are of lesser importance than any of the specific recommendations for each one of the school districts and their respective community. These are common recommendations of importance to create safer pedestrian and bicycle environments while at the same time encourage walking and bike riding to and from school.

### Community

- Focus on projects that are the low cost and easy to implement first.
- Implement Complete Streets.
- Update the city’s comprehensive plan every two years.
- With each comprehensive plan update, specifically address access to physical activity infrastructure in the street and sidewalk section, and in the parks and recreation section by all segments of the population.
- In the comprehensive plan set specific goals and evaluation criteria for access to and availability of the physical activity infrastructure including (but not limited to):
  - Sidewalks
  - Bike paths
  - Walking and hiking trails
  - Recreation facilities
  - Skating rinks and other winter outdoor activity facilities
  - Any other initiatives to encourage and facilitate physical activity and enjoyment of the outdoors.
- Implement annual inspection and repair of all physical activity infrastructure.
- Develop and initiate city or school-sponsored programs to retrofit sidewalks in developed areas where sidewalks are absent and/or had not been required.
- Limit vehicular traffic in the school vicinity, especially during the times immediately before and after school.
- Require high school drivers to take a driver awareness short course on pedestrian and bicycle safety in order to be able to have a parking permit at the school. Provide a reward such as a special parking sticker.
- Keep walkway/bikeways separate from the street (buffer with planting or even a bike lane).
- Ensure sidewalks are the appropriate width for the site conditions (sidewalks adjacent to a street should be wider).
- Provide a sidewalk on both sides of the street to prevent the need for jumping from one side to another.
- Provide two ramps (at curbs) per corner = one per four way intersection.



- Mark ALL crosswalks in community.
  - Use the zebra stripe pattern as opposed to the simple striped lines across the road.
  - Provide 'shark teeth' paint markings to show where cars should stop for crosswalks – particularly on multi lane roads.
  - While flashers and crosswalk may seem to be an area to focus, be aware that studies show you only get about a 3 mile reduction in speed when these devices are installed. Putting up signs that remind drivers that it is the law that pedestrians have the right of way and that there is a fine for not following the law can also be effective.
- Review the MUTCD(Manual on Uniform Traffic Control Devices) to ensure that signage is current. See figure below and see [http://mutcd.fhwa.dot.gov/htm/2009/part7/part7\\_toc.htm](http://mutcd.fhwa.dot.gov/htm/2009/part7/part7_toc.htm).
- Do not spend an excessive amount of time and money making the drop/off pickup more convenient. It needs to be safe, but if made easy then it will be more likely that kids are dropped off and picked up at school as opposed to walking/biking.
- Post traffic control signs on each I-WALK Route with the fine listed for violation. Nail a few violators in the first few days of posting.
- Publish walking maps for each neighborhood that includes:
  - Community amenities and services such as schools, libraries, playgrounds, city offices, etc.
  - Unique vegetation, bird species
  - Distances
  - Walking times to destinations
  - Safest routes, crossings, etc.

## School

- Move bike racks away from the Bus/Parent pickup points to avoid congestion in those areas.
- Provide bike racks that allow the frame of the bike to be attached to the rack – not just the wheels.
- In instances where people turn at the same time the crossing light is green consider using a Leading pedestrian interval instead of a concurrent signal
- Use methods to slow traffic around the school
  - Speed bump
  - Street Diet (Go from 4 to 2 lanes)
  - Extend curb into road (also creates a shorter distance for the student to cross).

### 2009 Edition Part 7 Figure 7B-6. In-Street Signs in School Areas

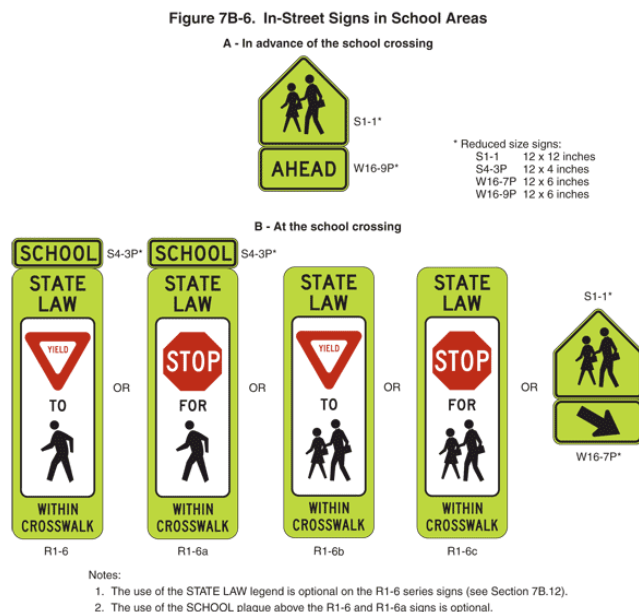
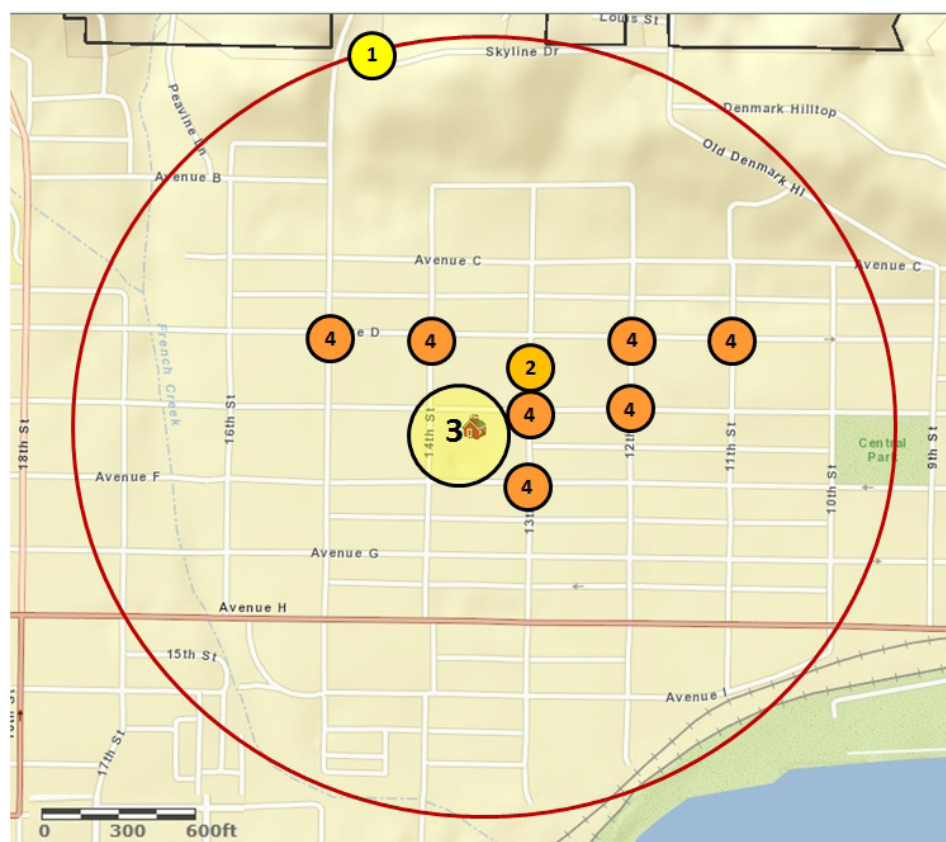


Figure 7B-6. In-Street Signs in School Areas



1. There is a fairly good sidewalk network within a two-block radius of the school. This sidewalk network should be continued on both sides of the street to the one-half-mile radius.
2. Few of the intersections have painted crosswalks. Painting these crosswalks and adding pedestrian priority signage will increase awareness and safety for walking to school.
3. Pedestrian priority should be raised around the school, despite the heavy traffic before and after school hours. All walking access to the school building must be clearly delineated and emphatically enforced. Speed and safe driving behavior must be controlled and enforced on all walking routes to the school facilities, especially within the one-half-mile radius of the school. Providing walking enhancements and vehicle restrictions will foster improved driving behavior and a safe walking environment.
4. The intersections numbered "4" on the map are perceived as unsafe for children walking to school. Because these intersections are along dominant routes to the school, action must be taken to increase their safety.



# A Additional Resources

## Webinars

1. January 11, 2011 - Overview of Resources and Next Steps (download powerpoint [.pptx](#) or view video [.wmv](#)).
2. February 15, 2011 - Webinar recording [.wmv](#), Partnership & Purpose [.ppt](#), IDOE Max Christensen [.ppt](#), GTSB Mick Mulhern [.pptx](#), DNR Scot Michelson [.ppt](#).
3. March 1, 2011 - Webinar recording [.wmv](#), Webinar Intro [.ppt](#), Infrastructure application 2011 [.doc](#), Infrastructure scoring 2010 [.doc](#), Infrastructure App Safety Scoring Pts [.docx](#), IDOT Kathy Ridnour [.pptx](#), INTRANS Chris Albrecht [.pptx](#), Iowa Safe Routes to School Workshops [.doc](#).
4. March 22, 2011 - Webinar recording [.wmv](#), Seeger GPS Assessment [.pptx](#)

## I-WALK Introduction Presentation([.pptx](#))

This presentation provides a brief overview of both national and Iowa Safe Routes to School Programs and why they are important. Each slide contains speaker notes with key points about both programs as well as a more in-depth look at Iowa's I-WALK program using GPS technology.

## Walking with a Purpose ([.pdf](#))

This resource will help your school conduct a walkability assessment of its neighborhood. The checklist will help assess what makes the walking environment inviting and safe, as well as identify barriers that exist. After the assessment, school staff can help students become advocates for a more walkable community.

## Coalition Member List ([.doc](#))

Inviting and involving key partners to be a part of the community coalition is essential to having a successful Safe Routes to School program. This chart will help you identify individuals who may share a similar interest in Safe Routes to School in your community.

## I-WALK Meeting 1 ([.doc](#))

To help you start the conversation about Safe Routes to School with your community coalition, a meeting agenda and talking points have been developed to help guide you through the discussion. The agenda and talking points can be adjusted to meet the needs of your coalition meeting.

## I-WALK Meeting 2 ([.doc](#))

To help you continue the conversation about Safe Routes to School with your community coalition, a meeting agenda and talking points have been developed to help guide you through the discussion. The agenda and talking points can be adjusted to meet the needs of your coalition meeting.

## Letter to LPH ([.doc](#))

This document will provide next steps for administering the Teacher Tally for the school you are working with for the I-WALK project.

## Letter from LPH to teacher ([.doc](#))

This letter is a template you can use to send to the teacher along with the teacher tally. It provides a brief overview of I-WALK & Safe Routes to School as well as a request for their help in completing the survey.

## Teacher Tally ([.pdf](#))

This is the tally that will be administered by each 3rd-5th grade classroom teacher over 5 consecutive days. Ideally this would be done in October to coincide with National Walk to School Day.

## Teacher Tally Collection Recorder ([.doc](#))

To ensure we gather as much data as possible, it may be helpful to keep a record of the teachers that the tallies were sent to in order to track who returned completed tallies. This template will help determine the percentage of students who participated.





## IOWA STATE UNIVERSITY Extension and Outreach

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